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Search Request Form

Scientific and Technical Information Center

Requester's Full Name: L. Eric Crane Examiner #: 65753 Date: 09/21/06
Art Unit: 1623 Phone Number: 272-0651 Serial No. 10/762,078
Mail Box & Bldg/Room Loc: 5D-35 Results Format Preferred: PAPER
[5C-18/Remsen]

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, key words, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and/or abstract..

Title of Invention: See attached copy of claims.
Inventors (please provide full names): See attached copy of claims.
Earliest Priority Filing Date: January 23, 2003
**For Sequence Searches only* Please include all of the pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search for the chemical structures of claims 19-20 in combination with 23-27 (linkage therebetween not too well defined in claim 1).

Please also search the patent and NON-patent literatures using the inventor name(s).

****

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	Type of Search	Vendors/cost as applicable
Searcher: _____	NA Sequence(#) _____	STN _____
Searcher Phone #: _____	AA Sequence(#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr. Link _____
Date Completed: _____	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Full Text _____	Seq.Syst'ms
_____		
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other(Specify) _____

PTO-1590 (11-2003)

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DICTIONARY FILE UPDATES:  25 SEP 2006  HIGHEST RN 908487-18-3

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L1                STR
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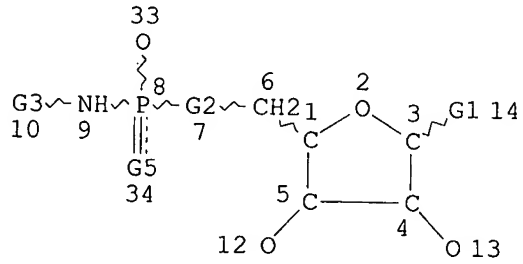

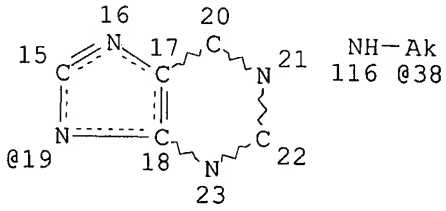

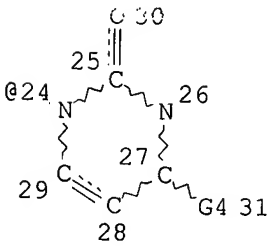

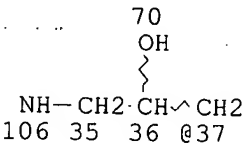

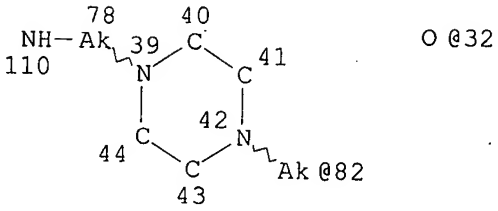

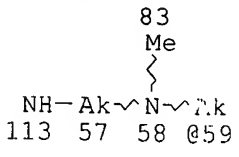

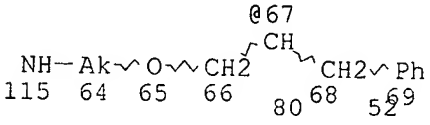

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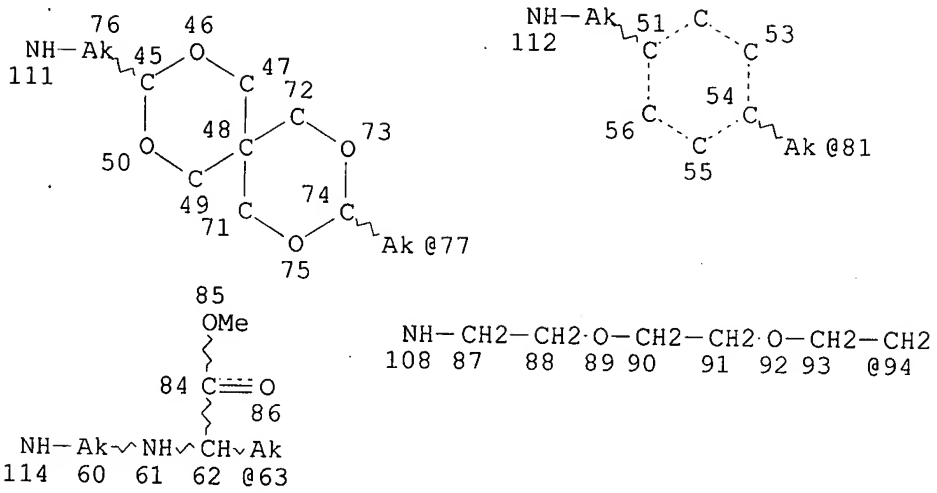

Page 2-A
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VAR G4=NH2/32
VAR G5=O/S
NODE ATTRIBUTES:
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GGCAT IS LIN SAT AT 38
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GGCAT IS LIN LOC SAT AT 81
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 113

STEREO ATTRIBUTES: NONE
L3 72 SEA FILE=REGISTRY SSS FUL L1

100.0% PROCESSED 3617 ITERATIONS 72 ANSWERS
SEARCH TIME: 00.00.01

=> => fil capl uspatf toxcenter casrea; d que nos 132; d que l11; d que l14; d que l18; d que l19
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L1 STR
L3 72 SEA FILE=REGISTRY SSS FUL L1
L6 25 SEA HARDEMAN K?/AU
L7 3161 SEA HALL S?/AU
L8 472 SEA WARE R?/AU
L9 15 SEA HINKLEY L?/AU
L10 64 SEA JENKS M?/AU
L31 41 SEA L3
L32 0 SEA L31 AND (L6 OR L7 OR L8 OR L9 OR L10)

L6 25 SEA HARDEMAN K?/AU
L7 3161 SEA HALL S?/AU
L8 472 SEA WARE R?/AU
L9 15 SEA HINKLEY L?/AU
L10 64 SEA JENKS M?/AU
L11 2 SEA L6 AND L7 AND L8 AND L9 AND L10

L6 25 SEA HARDEMAN K?/AU
L7 3161 SEA HALL S?/AU
L8 472 SEA WARE R?/AU
L9 15 SEA HINKLEY L?/AU
L10 64 SEA JENKS M?/AU

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L12      619346 SEA NUCLEOTIDE? OR OLIGONUCLEOTIDE?
L13      184616 SEA (SOLID OR RESIN)(W)(SUPPORT# OR PHASE#)
L14           3 SEA (L6 OR L7 OR L8 OR L9 OR L10) AND L12 AND L13


L6           25 SEA HARDEMAN K?/AU
L7         3161 SEA HALL S?/AU
L8          472 SEA WARE R?/AU
L9           15 SEA HINKLEY L?/AU
L10          64 SEA JENKS M?/AU
L12      619346 SEA NUCLEOTIDE? OR OLIGONUCLEOTIDE?
L15     1484089 SEA LINK? OR CROSSLINK?
L16        3721 SEA (L6 OR L7 OR L8 OR L9 OR L10)
L17         189 SEA L16 AND L15
L18          12 SEA L17 AND L12


L6           25 SEA HARDEMAN K?/AU
L7         3161 SEA HALL S?/AU
L8          472 SEA WARE R?/AU
L9           15 SEA HINKLEY L?/AU
L10          64 SEA JENKS M?/AU
L13      184616 SEA (SOLID OR RESIN)(W)(SUPPORT# OR PHASE#)
L15     1484089 SEA LINK? OR CROSSLINK?
L16        3721 SEA (L6 OR L7 OR L8 OR L9 OR L10)
L17         189 SEA L16 AND L15
L19           4 SEA L17 AND L13


=> s l11,l14,l18,l19
L33          13 (L11 OR L14 OR L18 OR L19)

=> fil medl pascal biotechno biosis biotechds embase; d que 128; d que 129; d que
130
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L20          53 SEA HARDEMAN K?/AU
L21        6975 SEA HALL S?/AU
L22        1112 SEA WARE R?/AU
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L28           0 SEA L20 AND L21 AND L22 AND L23 AND L24


L20          53 SEA HARDEMAN K?/AU
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L22        1112 SEA WARE R?/AU
L23          29 SEA HINKLEY L?/AU
L24         115 SEA JENKS M?/AU
L25     1252177 SEA NUCLEOTIDE? OR OLIGONUCLEOTIDE?
L26      143736 SEA (SOLID OR RESIN)(W)(SUPPORT# OR PHASE#)
L29           0 SEA (L20 OR L21 OR L22 OR L23 OR L24) AND L25 AND L26


L20          53 SEA HARDEMAN K?/AU
L21        6975 SEA HALL S?/AU
L22        1112 SEA WARE R?/AU
L23          29 SEA HINKLEY L?/AU
L24         115 SEA JENKS M?/AU
L25     1252177 SEA NUCLEOTIDE? OR OLIGONUCLEOTIDE?
L26      143736 SEA (SOLID OR RESIN)(W)(SUPPORT# OR PHASE#)
L27     1681429 SEA LINK? OR CROSSLINK?
L30          18 SEA (L20 OR L21 OR L22 OR L23 OR L24) AND L27 AND (L25 OR L26)


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L34 20 DUP REM L33 L30 (11 DUPLICATES REMOVED)
ANSWERS '1-2' FROM FILE CAPLUS
ANSWERS '3-11' FROM FILE USPATFULL
ANSWER '12' FROM FILE TOXCENTER
ANSWER '13' FROM FILE CASREACT
ANSWERS '14-15' FROM FILE MEDLINE
ANSWERS '16-17' FROM FILE BIOTECHNO
ANSWER '18' FROM FILE BIOSIS
ANSWERS '19-20' FROM FILE EMBASE

=> d ibib ed abs 1-20

L34 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2002:38262 CAPLUS
DOCUMENT NUMBER: 137:106625
TITLE: A chromosomal region promoting outcrossing in a conifer
AUTHOR(S): Williams, Claire G.; Zhou, Yi; **Hall, Sarah E.**
CORPORATE SOURCE: Graduate Genetics Program, Texas A and M University, College Station, TX, 77843-2135, USA
SOURCE: Genetics (2001), 159(3), 1283-1289
CODEN: GENTAE; ISSN: 0016-6731
PUBLISHER: Genetics Society of America
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 16 Jan 2002
AB Prefertilization mechanisms influencing selfing rates are thought to be absent in conifers. Outcrossing in conifers is promoted via an embryo-lethal system, but the genetic mechanism is poorly understood. This study is the first exptl. profile of the genetic mechanism promoting outcrossing in conifers. Mol. dissection of a Pinus taeda L. selfed pedigree detected a chromosomal region identified as PtTX3020-RPtest9. Within this region, a semilethal factor was tightly linked (r = 0.0076) to a polymorphic expressed sequence tag (EST). The linkage group flanking the lethal factor showed strong heterozygote advantage. Using genotypic frequencies for the linkage group, three hypotheses about the semilethal factor could be tested: (1) the presence of a balanced lethal system, i.e., a lethal factor present in each of the two marker intervals; (2) gametic selection operative prior to fertilization; and (3) a stage-specific lethal factor. Selection acted via the embryo-lethal system. No support for a genetic mechanism operating prior to fertilization was found. The semilethal factor exerted no effect after embryo maturity. The genetic mechanism promoting outcrossing in P. taeda L. appears to have a balancing selection system due to either pseudo-overdominance or true overdominance.
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:634045 CAPLUS
DOCUMENT NUMBER: 141:174409
TITLE: Preparation of resin-supported alkyl-linked **nucleotides** in **solid phase** synthesis of **oligonucleotides**
INVENTOR(S): **Hardeman, Klass P.; Hall, Steven E.; Ware, Roy W.; Hinkley, Lindsay A.; Jenks, Matthew G.**

PATENT ASSIGNEE(S): Serenex, Inc., USA
SOURCE: PCT Int. Appl., 120 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004065566	A2	20040805	WO 2004-US1745	20040122
WO 2004065566	A3	20041118		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI				
US 2004215009	A1	20041028	US 2004-762078	20040121
AU 2004205922	A1	20040805	AU 2004-205922	20040122
CA 2513901	AA	20040805	CA 2004-2513901	20040122
EP 1585754	A2	20051019	EP 2004-704469	20040122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				

PRIORITY APPLN. INFO.:

US 2003-453697P	P	20030122
US 2003-532134P	P	20031223
US 2004-762078	A	20040121
WO 2004-US1745	W	20040122

OTHER SOURCE(S): MARPAT 141:174409
ED Entered STN: 06 Aug 2004
AB Alkyl-linked nucleotide compns. and nucleotide affinity media comprising an alkyl-linked nucleotide Yx-(R1-R2-K-R7-Z)m wherein Y is a solid support, a tag, or a protective group; x = 0-1; R1 is a covalent bond between Y and R1, or R1 is acyl, alkyl, cycloalkyl, heteroalkyl, a heterocycloalkyl, aryl, heteroaryl; R2 is alkyl, cycloalkyl, heteroalkyl, heterocycloalkyl, heteroaryl; K is a heteroatom; R7 is (P)n, where P is a phosphate or thiophosphate and n is at least one or R7 is a phosphate group mimic, Z is a nucleoside or nucleoside derivative; and m is at least one, are provided. The linker is generally a hydrophobic linker that can be a 3, 4, 5, 6, 7, 8, 9, 10, or a longer carbon chain. Also included in the invention are methods for synthesis of an alkyl-linked nucleotide, nucleotide affinity media and methods of use thereof for affinity chromatog. and screening methods. Thus, 8-[(2-methoxy-ethyl)amino]-adenosine was prepared and used in preparation of cyanogen bromide-activated resin-supported alkyl-linked nucleotides in solid phase synthesis of oligonucleotide.

L34 ANSWER 3 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2006:119694 USPATFULL
TITLE: Phospholipid:diacylglycerol acyltransferases
INVENTOR(S): Butler, Karlene H., UNITED STATES
Cahoon, Rebecca E., UNITED STATES
Famodu, Omolayo O., UNITED STATES
Hall, Sarah E., UNITED STATES
Cahoon, Edgar Benjamin, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006101544	A1	20060511
APPLICATION INFO.:	US 2005-315766	A1	20051222 (11)

RELATED APPLN. INFO.: Division of Ser. No. US 2002-321802, filed on 17 Dec 2002, PENDING

reprint of search completed 9-26-06

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-341448P	20011217 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: DLA PIPER RUDNICK GRAY CARY US LLP, P. O. BOX 64807, CHICAGO, IL, 60664-0807, US
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 11 Drawing Page(s)
LINE COUNT: 3673
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to an isolated nucleic acid fragment encoding an acyltransferase, more specifically a phospholipid:diacylglycerol acyltransferase. The invention also relates to the construction of a recombinant DNA construct encoding all or a portion of the phospholipid:diacylglycerol acyltransferase, in sense or antisense orientation, wherein expression of the recombinant DNA construct results in production of altered levels of the phospholipid:diacylglycerol acyltransferase in a transformed host cell.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L34 ANSWER 4 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2006:11055 USPATFULL
TITLE: System and methods for predicting transmembrane domains in membrane proteins and mining the genome for recognizing G-protein coupled receptors
INVENTOR(S): Trabanino, Rene J., Los Angeles, CA, UNITED STATES
Vaidehi, Nagarajan, Arcadia, CA, UNITED STATES
Hall, Spencer E., Tucson, AZ, UNITED STATES
Goddard, William A., Pasadena, CA, UNITED STATES
Floriano, Wely, Pasadina, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006009913	A1	20060112
APPLICATION INFO.:	US 2004-901576	A1	20040729 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-491334P	20030729 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FISH & NEAVE IP GROUP, ROPES & GRAY LLP, ONE INTERNATIONAL PLACE, BOSTON, MA, 02110-2624, US
NUMBER OF CLAIMS: 45
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Page(s)
LINE COUNT: 1819
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides computer-implemented methods and apparatus implementing a hierarchical protocol using multiscale molecular dynamics and molecular modeling methods to predict the presence of transmembrane regions in proteins, such as G-Protein Coupled Receptors (GPCR), and protein structural models generated according to the protocol. The protocol features a coarse grain sampling method, such as hydrophobicity analysis, to provide a fast and accurate procedure for predicting transmembrane regions. Methods and apparatus of the invention are useful

to screen protein or polynucleotide databases for encoded proteins with transmembrane regions, such as GPCRs.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L34 ANSWER 5 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2005:158273 USPATFULL
TITLE: Systems and methods for predicting the structure and function of multipass transmembrane proteins
INVENTOR(S): Trabanino, Rene J., Bell Gardens, CA, UNITED STATES
Vaidehi, Nagarajan, Arcadia, CA, UNITED STATES
Hall, Spencer E., Pasadena, CA, UNITED STATES
Goddard, William A., Pasadena, CA, UNITED STATES
Floriano, Wely, Pasadena, CA, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2005136481	A1	20050623	
APPLICATION INFO.:	US 2004-918531	A1	20040813	(10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-494971P	20030813 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FISH & NEAVE IP GROUP, ROPES & GRAY LLP, ONE INTERNATIONAL PLACE, BOSTON, MA, 02110-2624, US
NUMBER OF CLAIMS: 67
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 12 Drawing Page(s)
LINE COUNT: 4265
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides computer-implemented methods and apparatus implementing a hierarchical protocol using multiscale molecular dynamics and molecular modeling methods to predict the structure of transmembrane proteins such as G-Protein Coupled Receptors (GPCR), and protein structural models generated according to the protocol. The protocol features a combination of coarse grain sampling methods, such as hydrophobicity analysis, followed by coarse grain molecular dynamics and atomic level molecular dynamics, including accurate continuum solvation. Also included are energy optimization to determine the rotation of helices in the (seven-helical) TM bundle, and optimization of the helix translations along their axes and rotational optimization using hydrophobic moment of the helices, to provide a fast and accurate procedure for predicting GPCR tertiary structure.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L34 ANSWER 6 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2005:151212 USPATFULL
TITLE: Phagemid display system
INVENTOR(S): Wiersma, Erik Johan, Ontario, CANADA
Hall Stewart, Donald Ian, Ontario, CANADA

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2005130124	A1	20050616	
APPLICATION INFO.:	US 2003-491550	A1	20021004	(10)
	WO 2002-CA1496		20021004	

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-60326984	20011005
	US 2003-60332531	20011126

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Michael R Williams, Ade & Company, 1700-360 Main Street, Winnipeg, R3C 3Z3, CA
NUMBER OF CLAIMS: 18
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Page(s)
LINE COUNT: 2918
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a novel helper phage and phagemid and phagemid display system that comprises an amber mutation in gene 3 of the helper phage so that it is not expressed in the non-permissive bacteria and an in-frame stop codon in the phagemid prior to the gene 3 coding sequence that prevents expression of g3p unless a foreign gene is inserted therein, thus preventing propagation of insert-less phagemids. This results in improved display of foreign gene products on individual virions, avoidance of virions lacking foreign gene inserts and the creation of large phage display libraries.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L34 ANSWER 7 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2004:274506 USPATFULL
TITLE: Alkyl-**linked nucleotide** compositions
INVENTOR(S): **Hardeman, Klass P.**, Chapel Hill, NC, UNITED STATES
Hall, Steven E., Chapel Hill, NC, UNITED STATES
Ware, Roy W., Raleigh, NC, UNITED STATES
Hinkley, Lindsay A., Raleigh, NC, UNITED STATES
Jenks, Matthew G., Durham, NC, UNITED STATES
PATENT ASSIGNEE(S): Serenex, Inc., Durham, NC, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004215009	A1	20041028	
APPLICATION INFO.:	US 2004-762078	A1	20040121	(10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-453697P	20030122 (60)
	US 2003-532134P	20031223 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: ALSTON & BIRD LLP, BANK OF AMERICA PLAZA, 101 SOUTH TRYON STREET, SUITE 4000, CHARLOTTE, NC, 28280-4000
NUMBER OF CLAIMS: 31
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 5 Drawing Page(s)
LINE COUNT: 2874
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Alkyl-**linked nucleotide** compositions and **nucleotide** affinity media comprising an alkyl-**linked**

nucleotide are provided. The **linker** is generally a hydrophobic **linker** that can be a 3, 4, 5, 6, 7, 8, 9, 10, or a longer carbon chain. Also included in the invention are methods for synthesis of an alkyl-**linked nucleotide**, **nucleotide** affinity media and methods of use thereof for affinity chromatography and screening methods.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L34 ANSWER 8 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2003:284218 USPATFULL
TITLE: Phospholipid:diacylglycerol acyltransferases
INVENTOR(S): Butler, Karlene H., Newark, DE, UNITED STATES
Cahoon, Rebecca E., Webster Grove, MO, UNITED STATES
Famodu, Omolayo O., Newark, DE, UNITED STATES
Hall, Sarah E., Thorndale, PA, UNITED STATES
Cahoon, Edgar Benjamin, Webster Grove, MO, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003200563	A1	20031023	
	US 7053269	B2	20060530	
APPLICATION INFO.:	US 2002-321802	A1	20021217	(10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-341448P	20011217 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: E I DU PONT DE NEMOURS AND COMPANY, LEGAL PATENT RECORDS CENTER, BARLEY MILL PLAZA 25/1128, 4417 LANCASTER PIKE, WILMINGTON, DE, 19805
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 11 Drawing Page(s)
LINE COUNT: 3675
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention relates to an isolated nucleic acid fragment encoding an acyltransferase, more specifically a phospholipid:diacylglycerol acyltransferase. The invention also relates to the construction of a recombinant DNA construct encoding all or a portion of the phospholipid:diacylglycerol acyltransferase, in sense or antisense orientation, wherein expression of the recombinant DNA construct results in production of altered levels of the phospholipid:diacylglycerol acyltransferase in a transformed host cell.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L34 ANSWER 9 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2002:280040 USPATFULL
TITLE: Methods and reagents for detecting increased risk of developing an inflammatory disorder
INVENTOR(S): **Hall, Stephanie K.**, Fishers Island, NY, UNITED STATES
Milos, Patrice M., Cranston, RI, UNITED STATES
Seymour, Albert B., Madison, CT, UNITED STATES

	NUMBER	KIND	DATE

reprint of search completed 9-26-06

PATENT INFORMATION:	US 2002155474	A1	20021024
APPLICATION INFO.:	US 2001-32242	A1	20011221 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-258034P	20001222 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Gregg C. Benson, Pfizer Inc., Patent Department, MS 4159, Eastern Point Road, Groton, CT, 06340
NUMBER OF CLAIMS: 16
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Page(s)
LINE COUNT: 1060
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to methods for reliably detecting an increased risk of developing an inflammatory disorder in a mammalian patient (e.g., a human being) by detecting at least one copy of an IL-1β gene haplotype in the patient comprising cytosine **nucleotides** at positions -31 and +3953. Also provided are kits for performing such methods. In addition, methods for detecting patients who require a higher dosage of an agent that reduces the effect of IL-1β are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L34 ANSWER 10 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2001:4266 USPATFULL
TITLE: Recombinant nodavirus compositions and methods
INVENTOR(S): **Hall, Stephen G.**, San Diego, CA, United States
PATENT ASSIGNEE(S): Pentamer Pharmaceuticals, Inc., Anaheim, CA, United States (U.S. corporation)
The Scripps Research Institute, La Jolla, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6171591	B1	20010109
APPLICATION INFO.:	US 1997-986659		19971208 (8)

DOCUMENT TYPE: Patent
FILE SEGMENT: Granted
PRIMARY EXAMINER: Wortman, Donna C.
LEGAL REPRESENTATIVE: Olson & Hierl, Ltd.
NUMBER OF CLAIMS: 24
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 15 Drawing Figure(s); 15 Drawing Page(s)
LINE COUNT: 1357
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Recombinant nodavirus related compositions are disclosed. These compositions include chimeric proteins in which a nodavirus capsid protein is present together with a heterologous peptide segment. The heterologous peptide includes at least one cell-specific targeting sequence, such as a B cell epitope, a T cell epitope, or a sequence specific for another cell type, such as a hepatocyte. The chimeric proteins can be assembled to form chimeric virus-like particles. The chimeric virus-like particles are useful in therapeutic applications, such as vaccines and gene-delivery vectors, and in diagnostic applications, such as kits for the testing of body tissue or fluid samples. Methods for the use of recombinant nodavirus related

compositions in therapeutic and diagnostic applications are also described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L34 ANSWER 11 OF 20 USPATFULL on STN
ACCESSION NUMBER: 97:80910 USPATFULL
TITLE: Antibodies recognizing tumor associated antigen CA 55.1
INVENTOR(S): Rose, Michael Samuel, Wilmslow, United Kingdom
Boot, Christopher, Northwich, United Kingdom
Copley, Clive Graham, Macclesfield, United Kingdom
Paterson, Douglas Stephen, Macclesfield, United Kingdom
Hall, Susan Margaret, Adlington, United Kingdom
Wright, Andrew Firman, Macclesfield, United Kingdom
Blakey, David Charles, Macclesfield, United Kingdom
PATENT ASSIGNEE(S): Zeneca Limited, London, United Kingdom (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5665357		19970909	
APPLICATION INFO.:	US 1994-353400		19941202	(8)

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1993-24819	19931203
	GB 1994-11089	19940603

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Eisenschenk, Frank C.
LEGAL REPRESENTATIVE: Cushman Darby & Cushman Intellectual Property Group of Pillsbury Madison & Sutro, LLP
NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 18 Drawing Figure(s); 19 Drawing Page(s)
LINE COUNT: 2937
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Antibodies which recognize a tumor related antigen designated CA55.1 such as hybridoma 55.1 deposited as ECACC deposit number 93081901 in which the complementarity determining regions have the following sequences:

a) heavy chain

CDR1 G Y W I H (SEQ ID NO: 27)

CDR2 E V N P S T G R S D Y N E K F K N (SEQ ID NO: 28)

CDR3 E R A Y G Y D D A M D Y (SEQ ID NO: 29)

b) light chain

CDR1 K S S Q S L L N S R T R K N Y L A (SEQ ID NO: 30)

CDR2 W A S T R T S (SEQ ID NO: 31)

CDR3 K Q S Y T L R T (SEQ ID NO: 32)

or a conservative analogue thereof. The peptide ACEHRGSGWC (SEQ ID NO: 26), as displayed on the surface of bacteriophage NCIMB Number 40638, is a

mimic of the tumor related antigen CA55.1.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L34 ANSWER 12 OF 20 TOXCENTER COPYRIGHT 2006 ACS on STN DUPLICATE 5
ACCESSION NUMBER: 1997:193317 TOXCENTER
COPYRIGHT: Copyright 2006 ACS
DOCUMENT NUMBER: CA12720276620A
TITLE: Glucose-6-phosphate dehydrogenase Durham: a de novo mutation associated with chronic hemolytic anemia
AUTHOR(S): Zimmerman, Sherri A.; **Ware, Russell E.**; Forman, Linda; Westwood, Beryl; Beutler, Ernest
CORPORATE SOURCE: Div. Hematology-Oncology, Dep. Pediatrics, Duke Univ. Med. Center, Durham, NC, USA.
SOURCE: Journal of Pediatrics (St. Louis), (1997) Vol. 131, No. 2, pp. 284-287.
CODEN: JOPDAB. ISSN: 0022-3476.
COUNTRY: UNITED STATES
DOCUMENT TYPE: Journal
FILE SEGMENT: CAPLUS
OTHER SOURCE: CAPLUS 1997:604442
LANGUAGE: English
ENTRY DATE: Entered STN: 16 Nov 2001
Last Updated on STN: 18 Jun 2002
ED Entered STN: 16 Nov 2001
Last Updated on STN: 18 Jun 2002
AB Glucose-6-phosphate dehydrogenase (G6PD) deficiency is a common X-**linked** enzyme defect. We report a new variant, G6PD Durham713G, that is associated with chronic nonspherocytic hemolytic anemia. The G6PD Durham713G variant has a unique biochem. and enzymic profile and a novel A→G substitution mutation at **nucleotide** 713, changing lysine to arginine at amino acid 238. This mutation was not found in the mother of our patient, indicating that G6PD Durham713G resulted from a de novo mutation.

L34 ANSWER 13 OF 20 CASREACT COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 134:208123 CASREACT
TITLE: **Solid-Phase** Synthesis of C-Terminal Peptide Hydroxamic Acids
AUTHOR(S): Zhang, Wei; Zhang, Lianshan; Li, Xianfeng; Weigel, John A.; **Hall, Steven E.**; Mayer, John P.
CORPORATE SOURCE: Sphinx Pharmaceuticals A Division of Eli Lilly and Company, Cambridge, MA, 02139, USA
SOURCE: Journal of Combinatorial Chemistry (2001), 3(2), 151-153
CODEN: JCCHFF; ISSN: 1520-4766
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A facile approach to the synthesis of peptide hydroxamic acids is based on cleavage of resin-bound thioesters with O-trimethylsilyl hydroxylamine. A library of 17 peptide hydroxamic acids was synthesized with good to excellent purity by using this method.
REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 14 OF 20 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 1999167591 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10066921

TITLE: ATP inhibition of a mouse brain large-conductance K+ (mslo) channel variant by a mechanism independent of protein phosphorylation.
AUTHOR: Clark A G; **Hall S K**; Shipston M J
CORPORATE SOURCE: Membrane Biology Group, Department of Biomedical Sciences, University of Edinburgh, Medical School, Teviot Place, Edinburgh EH8 9AG, UK.
SOURCE: The Journal of physiology, (1999 Apr 1) Vol. 516 (Pt 1), pp. 45-53.
Journal code: 0266262. ISSN: 0022-3751.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199907
ENTRY DATE: Entered STN: 30 Jul 1999
Last Updated on STN: 30 Jul 1999
Entered Medline: 16 Jul 1999
ED Entered STN: 30 Jul 1999
Last Updated on STN: 30 Jul 1999
Entered Medline: 16 Jul 1999
AB 1. We investigated the effect of ATP in the regulation of two closely related cloned mouse brain large conductance calcium- and voltage-activated potassium (BK) channel alpha-subunit variants, expressed in human embryonic kidney (HEK 293) cells, using the excised inside-out configuration of the patch-clamp technique. 2. The mB2 BK channel alpha-subunit variant expressed alone was potently inhibited by application of ATP to the intracellular surface of the patch with an IC50 of 30 microM. The effect of ATP was largely independent of protein phosphorylation events as the effect of ATP was mimicked by the non-hydrolysable analogue 5'-adenylylimidodiphosphate (AMP-PNP) and the inhibitory effect of ATPgammaS was reversible. 3. In contrast, under identical conditions, direct **nucleotide** inhibition was not observed in the closely related mouse brain BK channel alpha-subunit variant mbr5. Furthermore, direct **nucleotide** regulation was not observed when mB2 was functionally coupled to regulatory beta-subunits. 4. These data suggest that the mB2 alpha-subunit splice variant could provide a dynamic **link** between cellular metabolism and cell excitability.

L34 ANSWER 15 OF 20 MEDLINE on STN
ACCESSION NUMBER: 1999354367 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10425635
TITLE: Recent advances in **solid phase** synthesis.
AUTHOR: **Hall S E**
CORPORATE SOURCE: Sphinx Pharmaceuticals, A Division of Eli Lilly, Research Triangle Park, NC 27709, USA.
SOURCE: Molecular diversity, (1998-1999) Vol. 4, No. 2, pp. 131-42.
Journal code: 9516534. ISSN: 1381-1991.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199911
ENTRY DATE: Entered STN: 11 Jan 2000
Last Updated on STN: 11 Jan 2000
Entered Medline: 22 Nov 1999
ED Entered STN: 11 Jan 2000
Last Updated on STN: 11 Jan 2000

Entered Medline: 22 Nov 1999

AB The use of **solid phase** synthesis continues to expand as chemists identify methodology that enables complex reactions. Recent efforts in this area have focused on new carbon-carbon bond forming reactions as well as a variety of heterocyclic systems. These examples are described along with updates on new **linking** strategies for **solid phase** synthesis.

L34 ANSWER 16 OF 20 BIOTECHNO COPYRIGHT 2006 Elsevier Science B.V. on STN DUPLICATE

ACCESSION NUMBER: 2003:37338117 BIOTECHNO
TITLE: Characterization of mouse Eppin and a gene cluster of similar protease inhibitors on mouse chromosome 2
AUTHOR: Sivashanmugam P.; **Hall S.H.**; Hamil K.G.; French F.S.; O'Rand M.G.; Richardson R.T.
CORPORATE SOURCE: R.T. Richardson, Dept. of Cell/Developmental Biology, 206 Taylor Hall, Univ. of NC at Chapel Hill, Chapel Hill, NC 27599-7090, United States. E-mail: rtrich@med.unc.edu
SOURCE: Gene, (17 JUL 2003), 312/1-2 (125-134), 34 reference(s) CODEN: GENED6 ISSN: 0378-1119
DOCUMENT TYPE: Journal; Article
COUNTRY: Netherlands
LANGUAGE: English
SUMMARY LANGUAGE: English
ED 20031125
AN 2003:37338117 BIOTECHNO
AB We have recently described a novel gene on human chromosome 20q 12-13.2 called Eppin (Epididymal protease inhibitor) that expresses three mRNAs encoding two isoforms of a cysteine-rich protein containing both Kunitz-type and WAP-type (four disulfide core) consensus sequences (Richardson et al., 2001). To further our studies on Eppin, we have cloned, sequenced and characterized mouse Eppin and report that it lies within a 200 Kb cluster of putative Eppin-like genes on mouse chromosome 2. Analysis of the homologies between the genes in the human and mouse Eppin clusters indicates that the first part of the cluster immediately surrounding Eppin represents a conserved **linkage** because the order of homologous genes is conserved. Sequencing of reverse transcription polymerase chain reaction (RT-PCR) products confirmed the expression of five of these novel Eppin-like genes in the mouse, which include the mouse homologue of HE-4. These genes are characterized by having either one or both of the Kunitz-type and WAP-type consensus sequences. Additional RT-PCR experiments revealed that expression of some of the Eppin-like genes is restricted to epididymis and testis while others are expressed in several somatic tissues. Northern blot analysis of 22 different mouse tissues identified Eppin transcripts only in the epididymis and testis. Immunostaining of Eppin with anti-recombinant mouse Eppin demonstrated Eppin predominantly on the postacrosomal region of mouse spermatozoa, in Sertoli cells, Leydig cells, and round spermatids in the testis, and in the principal cells of the cauda epididymidis epithelium. Eppin is first expressed by Sertoli cells of 12-day-old mice and subsequently in round spermatids, which is consistent with androgen regulation. Our results demonstrate that mouse chromosome 2 contains a conserved **linkage** of Eppin-like protease inhibitor genes that are expressed in the epididymis.

L34 ANSWER 17 OF 20 BIOTECHNO COPYRIGHT 2006 Elsevier Science B.V. on STN DUPLICATE

ACCESSION NUMBER: 1998:28554769 BIOTECHNO
TITLE: Paroxysmal nocturnal hemoglobinuria: Molecular pathogenesis and molecular therapeutic approaches
AUTHOR: Nishimura J.-I.; Smith C.A.; Phillips K.L.; **Ware R.E.**; Rosse W.F.
CORPORATE SOURCE: Dr. J.-I. Nishimura, Division Hematology Medical Oncology, Department of Medicine, Duke University Medical Center, Box 3934, Durham, NC 27710, United States.
SOURCE: Hematopathology and Molecular Hematology, (1998), 11/3-4 (119-146), 180 reference(s)
CODEN: HMHEFB ISSN: 1082-8893
DOCUMENT TYPE: Journal; Article
COUNTRY: United States
LANGUAGE: English
SUMMARY LANGUAGE: English
ED 20000202
AN 1998:28554769 BIOTECHNO
AB Paroxysmal nocturnal hemoglobinuria (PNH) is an acquired clonal hematologic stein cell disorder classified as an intravascular hemolytic anemia. Abnormal blood cells are deficient in glycosylphosphatidyl inositol (GPI)-anchored proteins. Deficiencies of GPI-anchored complement regulatory proteins, such as decay accelerating factor (DAF) and CD59, render red cells very sensitive to complement and result in complement-mediated hemolysis and hemoglobinuria. In the affected hematopoietic cells from patients with PNH, the first step in biosynthesis of the GPI anchor is defective. Three genes are involved in this reaction step and one of them, an X-**linked** gene termed PIG-A, is mutated in affected cells. Granulocytes and lymphocytes from the same patient have the same mutation, indicating that a somatic PIG-A mutation occurs in hematopoietic stem cells. The PIG-A gene is mutated in all patients with PNH reported to date. We review these recent advances in the understanding of the molecular pathogenesis of PNH. Furthermore, we present an hypothesis regarding the predominance of the PNH clone, caused by positive selection by hematopoietic suppressive cytokines, such as transforming growth factor (TGF)-β. In addition, we discuss the possibility of cure for PNH through molecular therapeutic strategy using gene transfer techniques.

L34 ANSWER 18 OF 20 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 1999:385284 BIOSIS
DOCUMENT NUMBER: PREV199900385284
TITLE: Recent advances in **solid phase** synthesis.
AUTHOR(S): **Hall, Steven E.** [Reprint author]
CORPORATE SOURCE: Division of Eli Lilly, Sphinx Pharmaceuticals, Research Triangle Park, NC, 27709, USA
SOURCE: Molecular Diversity, (1998-1999) Vol. 4, No. 2, pp. 131-142. print.
ISSN: 1381-1991.
DOCUMENT TYPE: Article
General Review; (Literature Review)
LANGUAGE: English
ENTRY DATE: Entered STN: 28 Sep 1999
Last Updated on STN: 28 Sep 1999
ED Entered STN: 28 Sep 1999
Last Updated on STN: 28 Sep 1999
AB The use of **solid phase** synthesis continues to expand as chemists identify methodology that enables complex reactions. Recent

efforts in this area have focused on new carbon-carbon bond forming reactions as well as a variety of heterocyclic systems. These examples are described along with updates on new **linking** strategies for **solid phase** synthesis.

L34 ANSWER 19 OF 20 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2006134047 EMBASE
TITLE: Designing prospective clinical pharmacogenomic (PG) trials: Meeting report on drug development strategies to enhance therapeutic decision making.
AUTHOR: Trepicchio W.L.; Essayan D.; **Hall S.T.**; Schechter G.; Tezak Z.; Wang S.J.; Weinreich D.; Simon R.
CORPORATE SOURCE: Dr. W.L. Trepicchio, Division of Molecular Medicine, Millennium Pharmaceuticals, 40 Landsdowne Street, Cambridge, MA 02139, United States. wtrepicchio@mpi.com
SOURCE: Pharmacogenomics Journal, (2006) Vol. 6, No. 2, pp. 89-94.
Refs: 12
ISSN: 1470-269X E-ISSN: 1473-1150 CODEN: PJHOAZ
PUBLISHER IDENT.: 6500344
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Conference Article
FILE SEGMENT: 016 Cancer
022 Human Genetics
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
052 Toxicology
LANGUAGE: English
ENTRY DATE: Entered STN: 5 Apr 2006
Last Updated on STN: 5 Apr 2006
ED Entered STN: 5 Apr 2006
Last Updated on STN: 5 Apr 2006
DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L34 ANSWER 20 OF 20 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2005138056 EMBASE
TITLE: Distribution of Activator (Ac) throughout the maize genome for use in regional mutagenesis.
AUTHOR: Kolkman J.M.; Conrad L.J.; Farmer P.R.; **Hardeman K.**; Ahern K.R.; Lewis P.E.; Sawers R.J.H.; Lebejko S.; Chomet P.; Brutnell T.P.
CORPORATE SOURCE: T.P. Brutnell, Boyce Thompson Institute, Cornell University, 1 Tower Rd., Ithaca, NY 14853, United States. tpb8@cornell.edu
SOURCE: Genetics, (2005) Vol. 169, No. 2, pp. 981-995.
Refs: 80
ISSN: 0016-6731 CODEN: GENTAE
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 021 Developmental Biology and Teratology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 14 Apr 2005
Last Updated on STN: 14 Apr 2005
ED Entered STN: 14 Apr 2005
Last Updated on STN: 14 Apr 2005
AB A collection of Activator (Ac)-containing, near-isogenic W22 inbred lines

has been generated for use in regional mutagenesis experiments. Each line is homozygous for a single, precisely positioned Ac element and the Ds reporter, r1-sc:m3. Through classical and molecular genetic techniques, 158 transposed Ac elements (tr-Acs) were distributed throughout the maize genome and 41 were precisely placed on the **linkage** map utilizing multiple recombinant inbred populations. Several PCR techniques were utilized to amplify DNA fragments flanking tr-Ac insertions up to 8 kb in length. Sequencing and database searches of flanking DNA revealed that the majority of insertions are in hypomethylated, low- or single-copy sequences, indicating an insertion site preference for genic sequences in the genome. However, a number of Ac transposition events were to highly repetitive sequences in the genome. We present evidence that suggests Ac expression is regulated by genomic context resulting in subtle variations in Ac-mediated excision patterns. These tr-Ac lines can be utilized to isolate genes with unknown function, to conduct fine-scale genetic mapping experiments, and to generate novel allelic diversity in applied breeding programs.

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DICTIONARY FILE UPDATES:  25 SEP 2006  HIGHEST RN 908487-18-3

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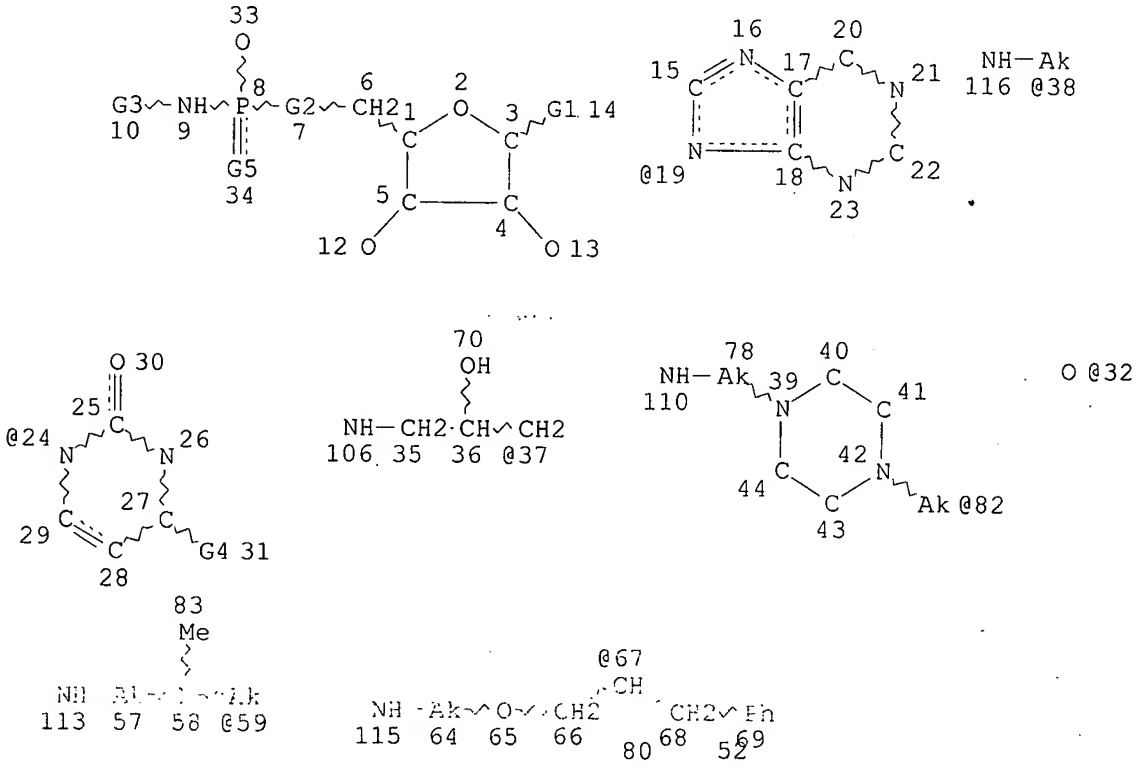
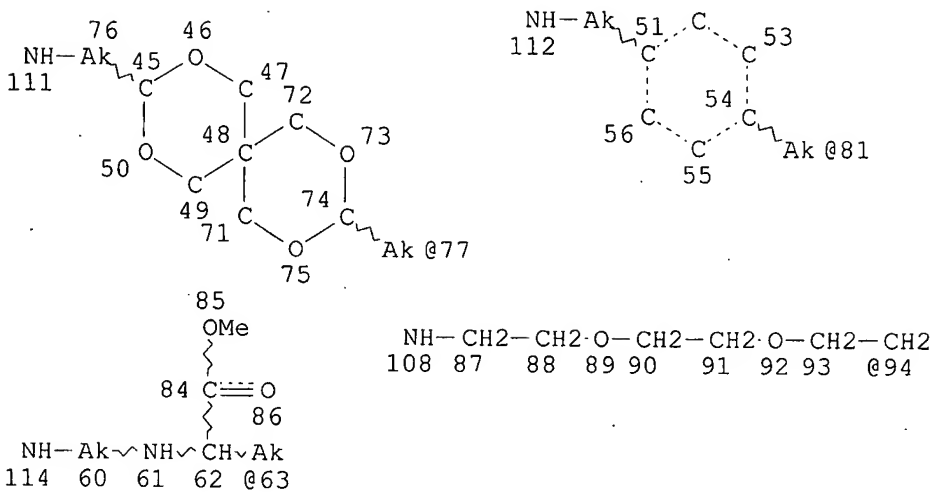


Page 1-A



Page 2-A
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VAR G4=NH2/32
VAR G5=O/S
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NUMBER OF NODES IS 113

STEREO ATTRIBUTES: NONE
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100.0% PROCESSED    3617 ITERATIONS                          72 ANSWERS
SEARCH TIME: 00.00.01


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L1               STR
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L35  ANSWER 1 OF 34  CAPLUS  COPYRIGHT 2006 ACS on STN DUPLICATE 1
ACCESSION NUMBER:         2006:405779  CAPLUS
DOCUMENT NUMBER:          145:116889
TITLE:                    Construction of folate-conjugated pRNA of
                          bacteriophage phi29 DNA packaging motor for delivery
                          of chimeric siRNA to nasopharyngeal carcinoma cells
AUTHOR(S):                Guo, S.; Huang, F.; Guo, P.
CORPORATE SOURCE:         Department of Pathobiology and Weldon School of
                          Biomedical Engineering, Purdue University, West
                          Lafayette, IN, 47907, USA
SOURCE:                   Gene Therapy (2006), 13(10), 814-820
                          CODEN: GETHEC; ISSN: 0969-7128
PUBLISHER:                Nature Publishing Group
DOCUMENT TYPE:            Journal
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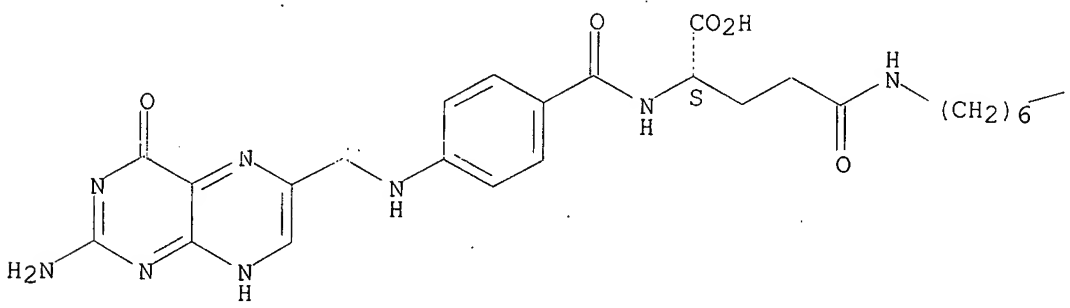
reprint of search completed 9-26-06

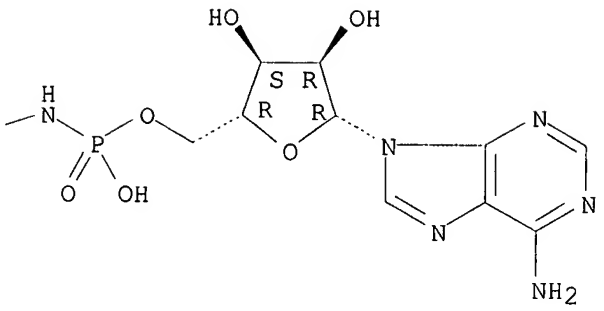
LANGUAGE: English
ED Entered STN: 04 May 2006
AB Nasopharyngeal carcinoma is a poorly differentiated upper respiratory tract cancer that highly expresses human folate receptors (hFR). Binding of folate to hFR triggers endocytosis. The folate was conjugated into AMP by 1,6-hexanediamine linkages. After reverse HPLC to reach 93% purity, the folate-AMP, which can only be used for transcription initiation but not for chain extension, was incorporated into the 5'-end of bacteriophage phi29 motor pRNA. A 16:1 ratio of folate-AMP to ATP in transcription resulted in more than 60% of the pRNA containing folate. A pRNA with a 5'-overhang is needed to enhance the accessibility of the 5' folate for specific receptor binding. Utilizing the engineered left/right interlocking loops, polyvalent dimeric pRNA nanoparticles were constructed using RNA nanotechnol. to carry folate, a detection marker, and siRNA targeting at an antiapoptosis factor. The chimeric pRNAs were processed into ds-siRNA by Dicer. Incubation of nasopharyngeal epidermal carcinoma (KB) cells with the dimer resulted in its entry into cancer cells, and the subsequent silencing of the target gene. Such a protein-free RNA nanoparticle with undetectable antigenicity has a potential for repeated long-term administration for nasopharyngeal carcinoma as the effectiveness and specificity were confirmed by ex vivo delivery in the animal trial.
IT **894763-51-0D**, conjugates with pRNA
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(delivery of chimeric siRNA to nasopharyngeal carcinoma cells using folate-conjugated pRNA of bacteriophage phi29 DNA packaging motor)
RN 894763-51-0 CAPLUS
CN L-Glutamine, N-[6-(5'-adenylylamino)hexyl]-N2-[4-[[(2-amino-1,4-dihydro-4-oxo-6-pteridinyl)methyl]amino]benzoyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

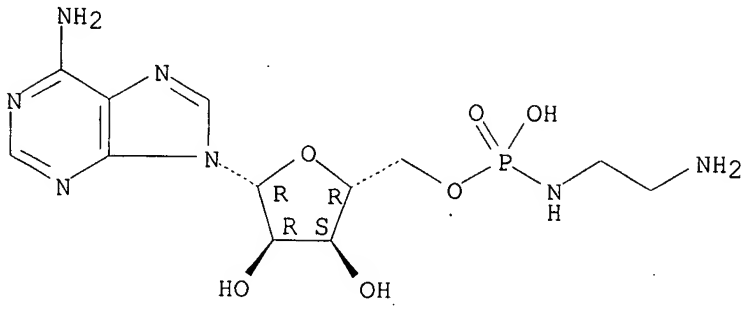
L35 ANSWER 2 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2004:1036551 CAPLUS
DOCUMENT NUMBER: 142:18995
TITLE: Transcriptional incorporation of adenine analogs into RNA and use of the analog-containing RNAs
INVENTOR(S): Huang, Faqing
PATENT ASSIGNEE(S): University of Southern Mississippi, USA
SOURCE: U.S. Pat. Appl. Publ., 25 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004241649	A1	20041202	US 2003-250029	20030529
PRIORITY APPLN. INFO.:			US 2003-250029	20030529

ED Entered STN: 03 Dec 2004
AB Methods of incorporating adenosine analogs and derivs. into the 5'-ends of an RNA by transcription are described. These adenosine derivs. may include naturally occurring compds. such as CoA, NAD, and FAD, as well as synthetic analogs containing reactive groups or nuclease-resistant phosphate backbone analogs. The derivs. can be used to impart desirable properties to the RNA such as fluorescence, the ability to bind to receptors or ligands, and improved catalytic activity. The transcribed RNAs can be used in a variety of applications including nucleic acid detection, designed or random generation of catalytic RNAs, antisense applications, and in the study of RNA structure and function. The incorporation is achieved by in vitro transcription using all four nucleoside triphosphates and the triphosphate of the adenine analog. The analog is present at significantly higher concentration than the ATP.
IT **52904-72-0D**, RNA containing **56351-04-3D**, RNA containing **56351-06-5D**, RNA containing **689279-64-9D**, RNA containing 689279-67-2D, RNA containing 689279-68-3D, RNA containing 800373-00-6D, RNA containing 800373-01-7D, RNA containing 800373-02-8D, RNA containing 800373-03-9D, RNA containing **800373-04-0D**, RNA containing **800373-06-2D**, RNA containing **800373-11-9D**, RNA containing **800373-12-0D**, RNA containing
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(transcriptional incorporation of adenine analogs into RNA and use of analog-containing RNAs)

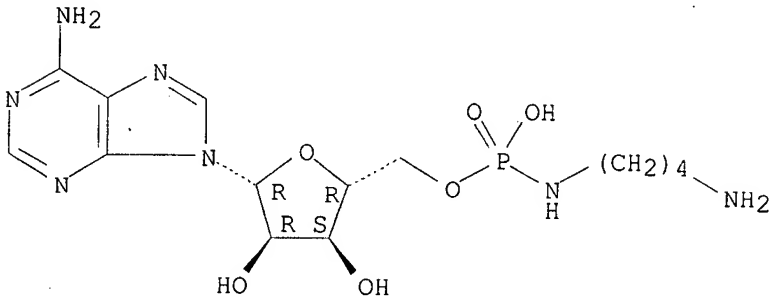
RN 52904-72-0 CAPLUS
CN Adenosine, 5'-[hydrogen (2-aminoethyl)phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



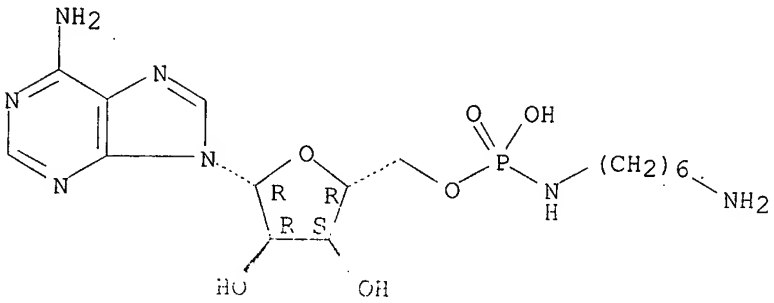
RN 56351-04-3 CAPLUS
CN Adenosine, 5'-[hydrogen (4-aminobutyl)phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



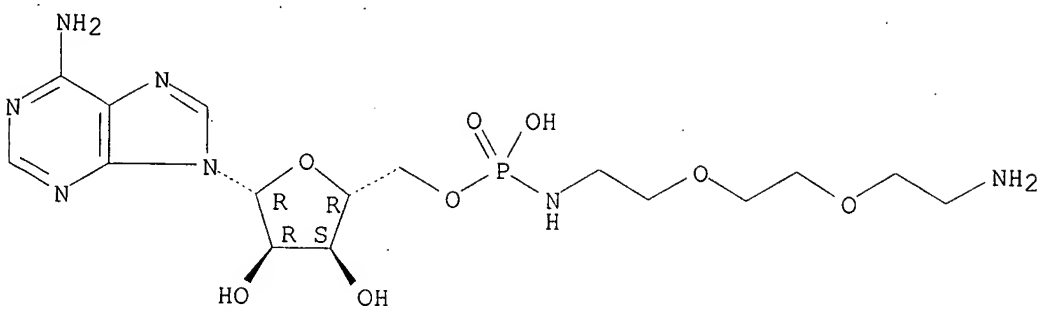
RN 56351-06-5 CAPLUS
CN Adenosine, 5'-[hydrogen (6-aminohexyl)phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 689279-64-9 CAPLUS
CN Adenosine, 5'-[hydrogen [2-[2-(2-aminoethoxy)ethoxy]ethyl]phosphoramidate] (9CI) (CA INDEX NAME)

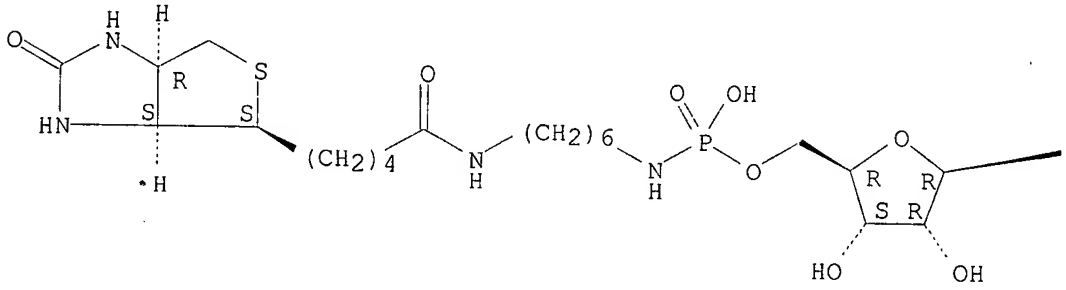
Absolute stereochemistry.



RN 689279-67-2 CAPLUS
CN Adenosine, 5'-[hydrogen [6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]hexyl]phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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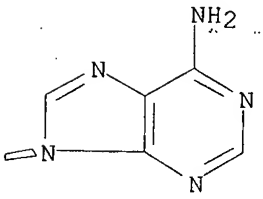
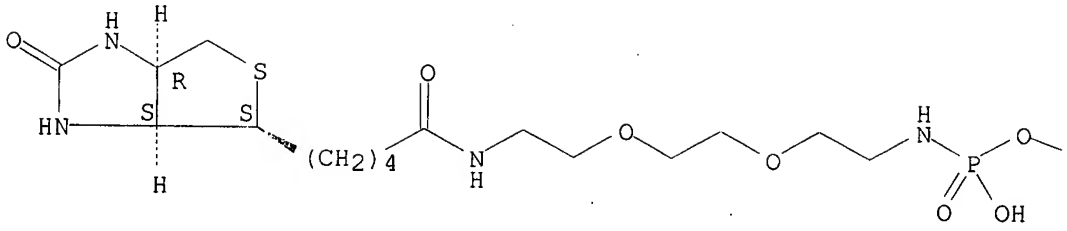


RN 689279-68-3 CAPLUS
CN Adenosine, 5'-[hydrogen [2-[2-[2-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]ethoxy]ethoxy]ethyl]phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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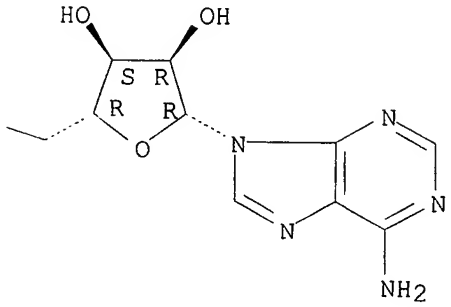
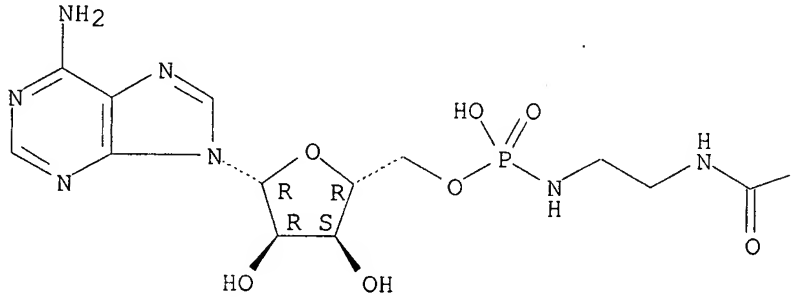


RN 800373-00-6 CAPLUS
CN Adenosine, 5'-[hydrogen [2-[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]amino]ethyl]phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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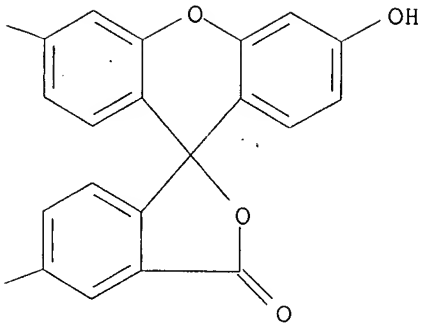
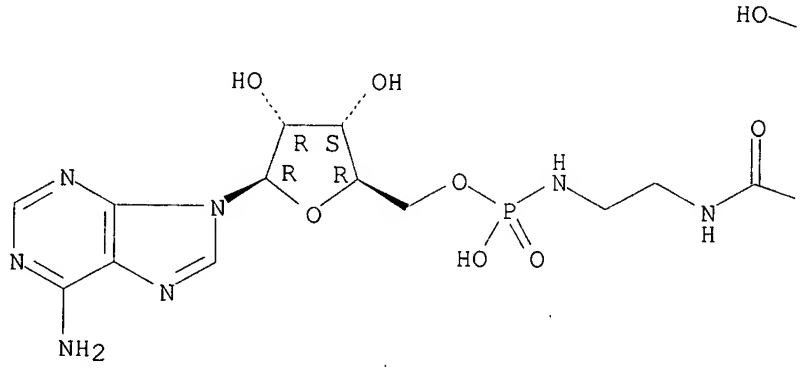


RN 800373-01-7 CAPLUS
CN Adenosine, 5'-[hydrogen [2-[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-6-yl)carbonyl]amino]ethyl]phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry..

PAGE 1-A



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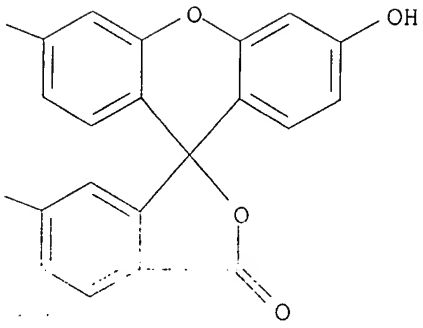
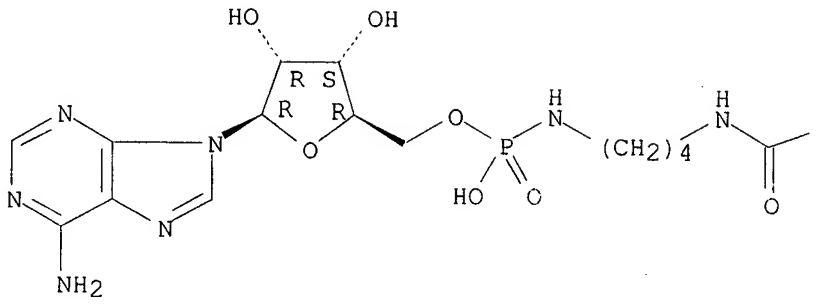


RN 800373-02-8 CAPLUS
CN Adenosine, 5'-[hydrogen [4-[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-

1(3H),9'-[9H]xanthen]-5-yl)carbonyl]amino]butyl]phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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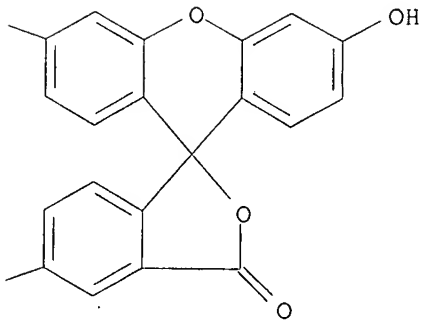
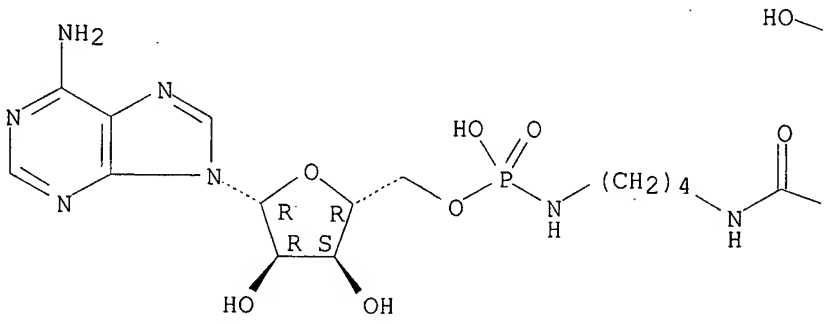


RN 800373-03-9 CAPLUS
CN Adenosine, 5'-[hydrogen [4-[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-6-yl)carbonyl]amino]butyl]phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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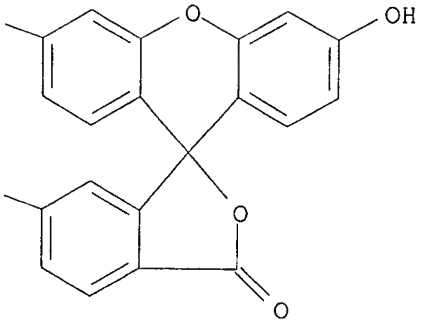
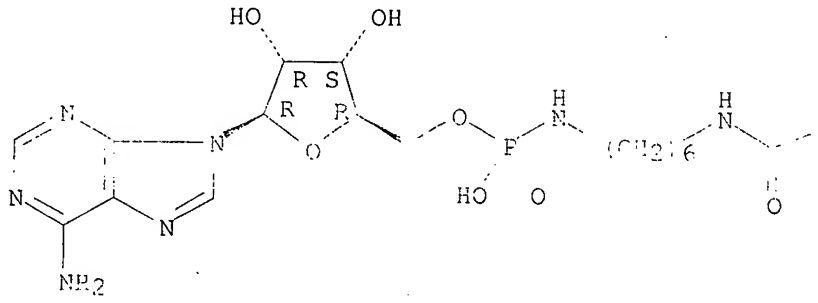


RN 800373-04-0 CAPLUS
CN Adenosine, 5'-[hydrogen [6-[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]amino]hexyl]phosphoramidate] (9CI) (CA INDEX NAME)

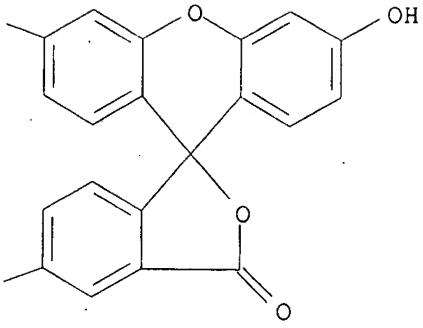
Absolute stereochemistry.

PAGE 1-A



reprint of search completed 9-26-06

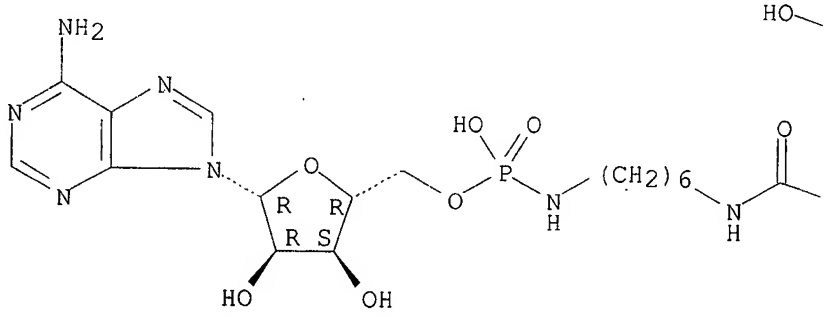
PAGE 1-B



RN 800373-06-2 CAPLUS
CN Adenosine, 5'-[hydrogen [6-[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-6-yl)carbonyl]amino]hexyl]phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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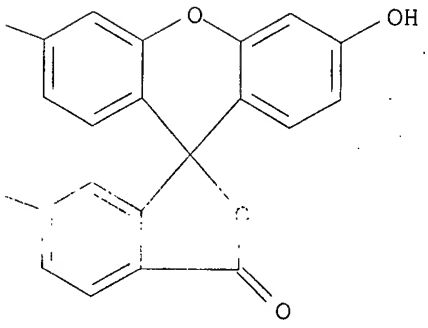


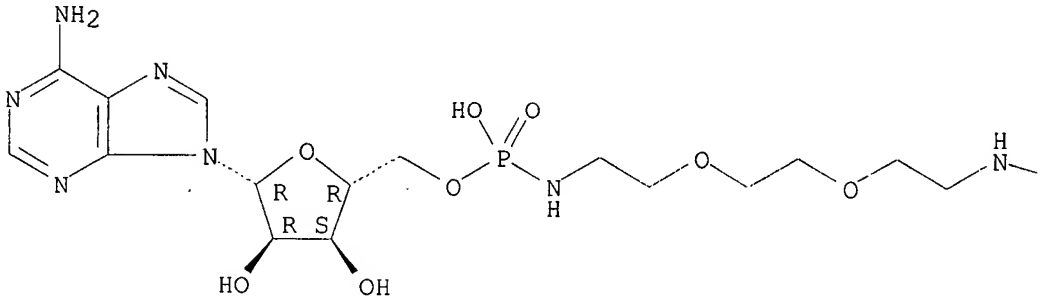
RN 800373-11-9 CAPLUS

reprint of search completed 9-26-06

CN Adenosine, 5'-[hydrogen [2-[2-[2-[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)carbonyl]amino]ethoxy]ethoxy]ethyl]phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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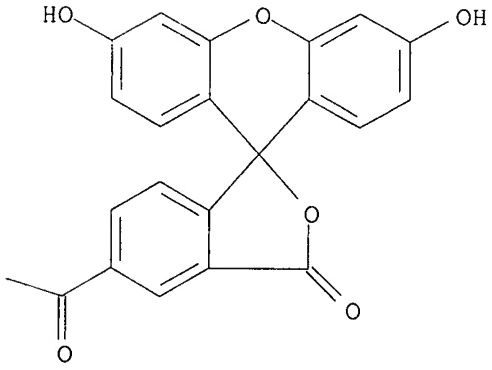

RN 800373-12-0 CAPLUS
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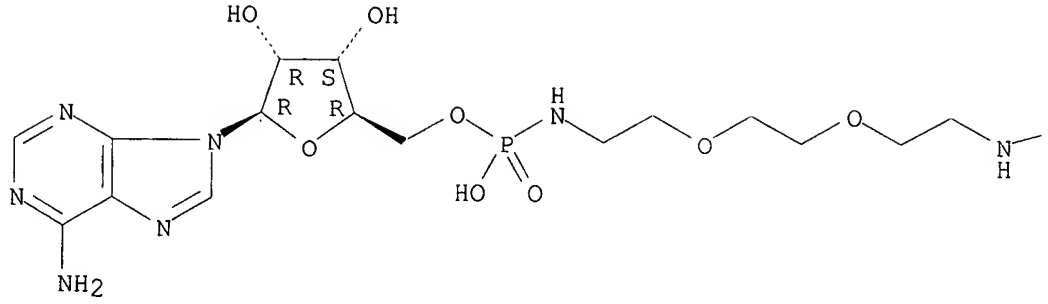
Absolute stereochemistry.

PAGE 1-A



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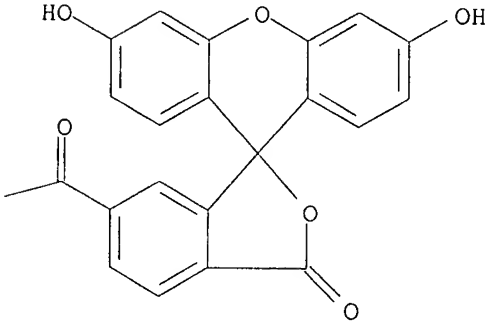


L35 ANSWER 3 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3

ACCESSION NUMBER: 2003:967101 CAPLUS
DOCUMENT NUMBER: 140:401895
TITLE: Synthesis of adenosine derivatives as transcription initiators and preparation of 5' fluorescein- and biotin-labeled RNA through one-step in vitro transcription
AUTHOR(S): Huang, Faqing; Wang, Guocan; Coleman, Tricia; Li, Na
CORPORATE SOURCE: Department of Chemistry and Biochemistry, University of Southern Mississippi, Hattiesburg, MS, 39406-5043, USA
SOURCE: RNA (2003), 9(12), 1562-1570
CODEN: RNARFU; ISSN: 1355-8382
PUBLISHER: Cold Spring Harbor Laboratory Press
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 140:401895
ED Entered STN: 11 Dec 2003

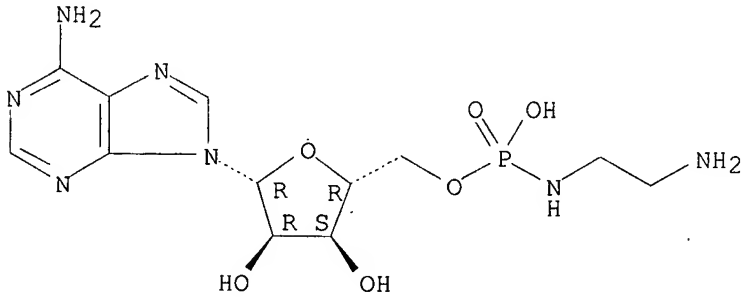
AB Expanding our previous finding of an adenosine-initiated transcription system, we now demonstrate that either the 5' site or the N6 site of adenosine nucleotides can be modified extensively without abolishing their ability to initiate transcription under the T7 .vphi.2.5 promoter. The series of amino derivs. of adenosine nucleotides were synthesized.

Fluorescein and biotin groups were coupled to AMP derivs. through linkers of different sizes and hydrophobicities. Both fluorescein- and biotin-conjugated (at either the 5' or N6 site) adenosine nucleotides can act as efficient transcription initiators, producing fluorescein- and biotin-labeled RNA at the specific 5' end by a one-step transcription procedure, eliminating posttranscriptional modification. Furthermore, N6-modified adenosine derivative-initiated transcription synthesizes 5' end modified RNA with a free phosphate group, providing the possibility for further derivatization. The current finding makes easily available a variety of site-specifically functionalized RNA, which may be used in nucleic acid detection, RNA structural and functional investigation, and generation and isolation of novel functional RNA.

IT **52904-72-0P 56351-04-3P 56351-06-5P**
689279-64-9P 689279-67-2P 689279-68-3P
690636-85-2P 690636-86-3P 690636-87-4P
690636-89-6P
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis of adenosine derivs. as transcription initiators and preparation of 5' fluorescein- and biotin-labeled RNA through one-step in vitro transcription)

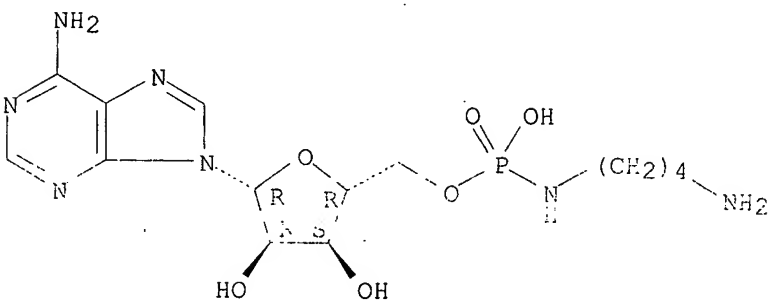
RN 52904-72-0 CAPLUS
CN Adenosine, 5'-[hydrogen (2-aminoethyl)phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 56351-04-3 CAPLUS
CN Adenosine, 5'-[hydrogen (4-aminobutyl)phosphoramidate] (9CI) (CA INDEX NAME)

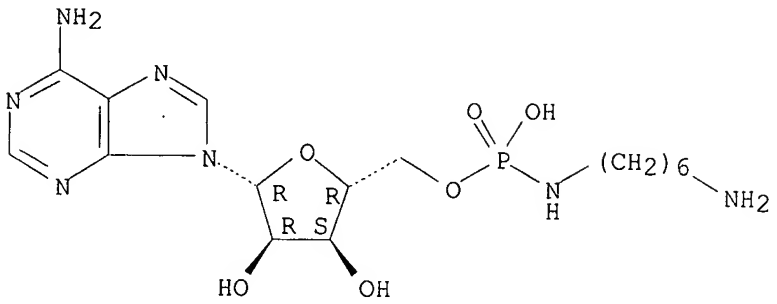
Absolute stereochemistry.



RN 56351-06-5 CAPLUS

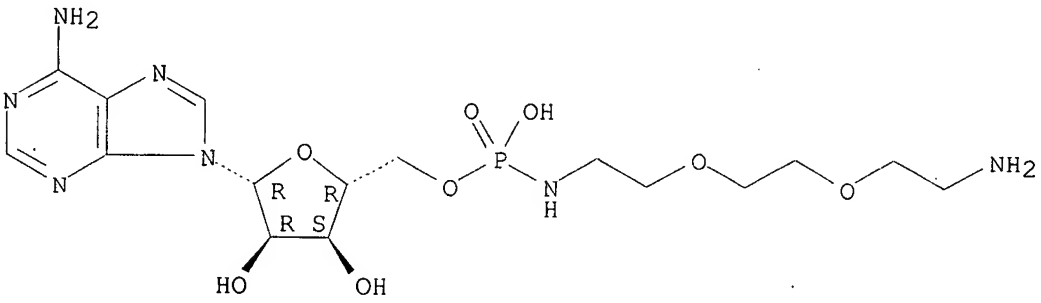
CN Adenosine, 5'-[hydrogen (6-aminohexyl)phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 689279-64-9 CAPLUS
CN Adenosine, 5'-[hydrogen [2-[2-(2-aminoethoxy)ethoxy]ethyl]phosphoramidate] (9CI) (CA INDEX NAME)

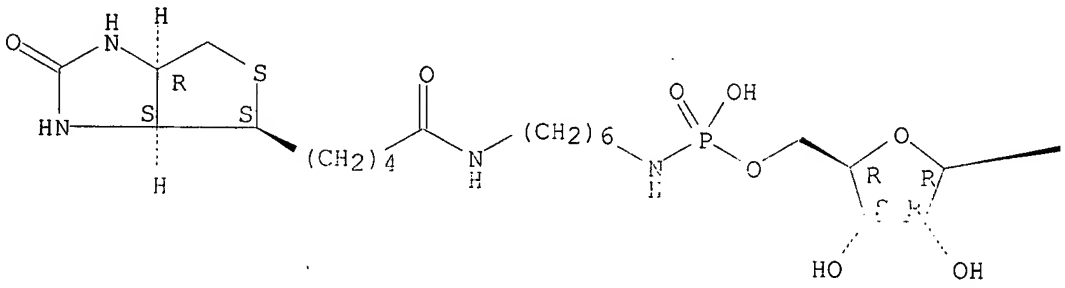
Absolute stereochemistry.



RN 689279-67-2 CAPLUS
CN Adenosine, 5'-[hydrogen [6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]hexyl]phosphoramidate] (9CI) (CA INDEX NAME)

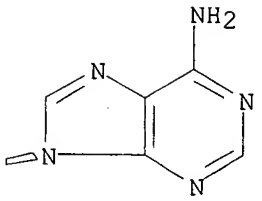
Absolute stereochemistry.

PAGE 1-A



reprint of search completed 9-26-06

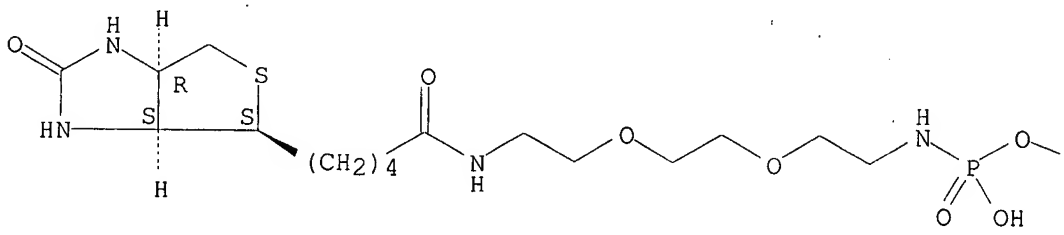
PAGE 1-B



RN 689279-68-3 CAPLUS
CN Adenosine, 5'-[hydrogen [2-[2-[2-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]ethoxy]ethoxy]ethyl]phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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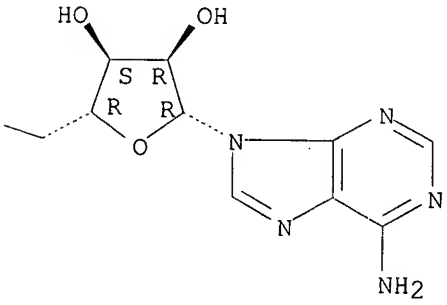
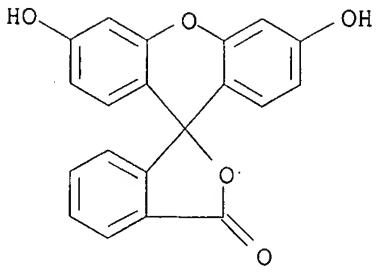
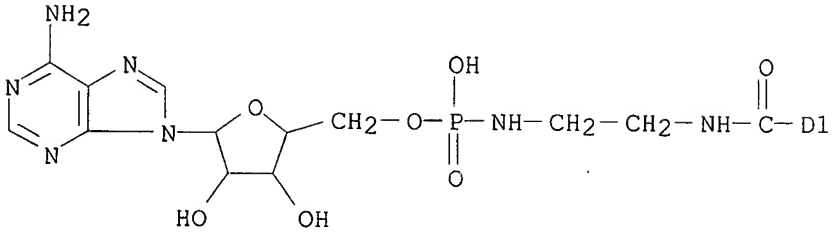
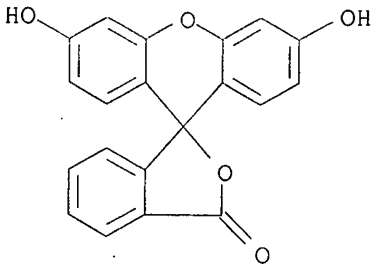


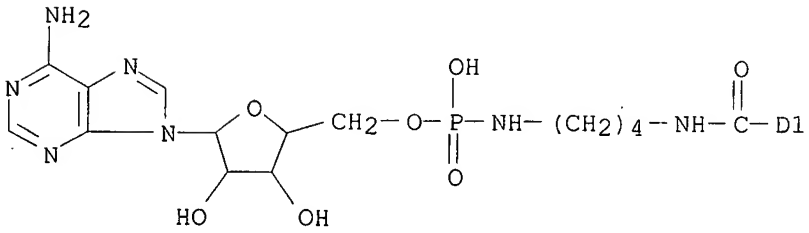
RN 690636-85-2 CAPLUS
CN Adenosine, 5'-[hydrogen [2-[[[3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5(or 6)-yl]carbonyl]amino]ethyl]phosphoramidate] (9CI) (CA INDEX NAME)



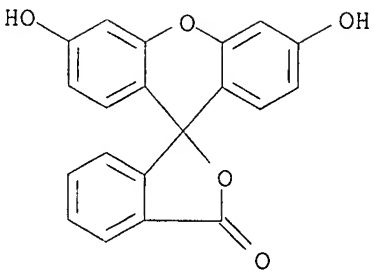


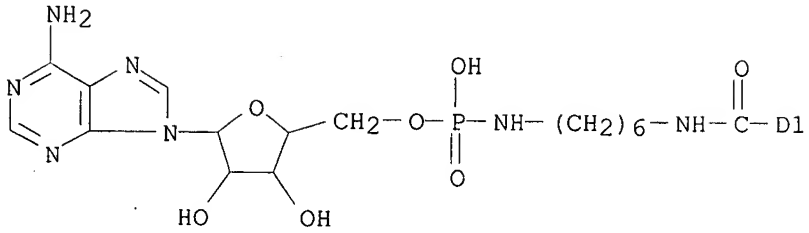
RN 690636-86-3 CAPLUS
CN Adenosine, 5'-[hydrogen [4-[[[3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5(or 6)-yl]carbonyl]amino]butyl]phosphoramidate] (9CI) (CA INDEX NAME)





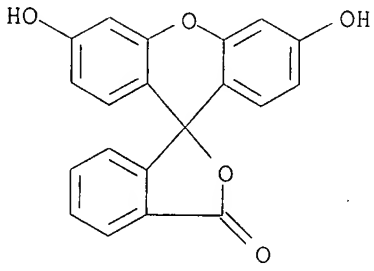
RN 690636-87-4 CAPLUS
CN Adenosine, 5'-[hydrogen [6-[[[3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5(or 6)-yl]carbonyl]amino]hexyl]phosphoramidate] (9CI) (CA INDEX NAME)

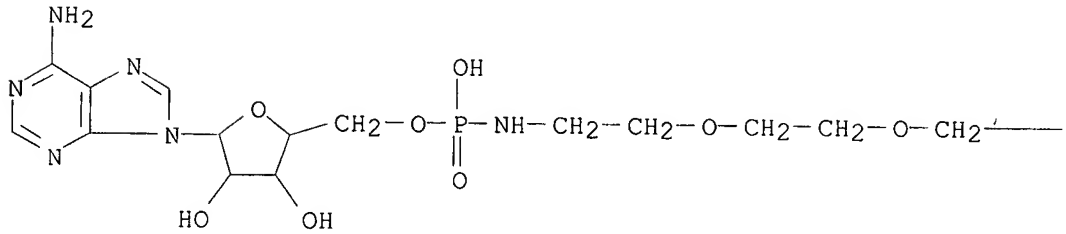




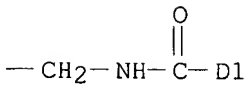
RN 690636-89-6 CAPLUS
CN Adenosine, 5'-[hydrogen [2-[2-[2-[[[3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5(or 6)-yl]carbonyl]amino]ethoxy]ethoxy]ethyl]phosphoramidate] (9CI) (CA INDEX NAME)

PAGE 1-A





PAGE 1-B

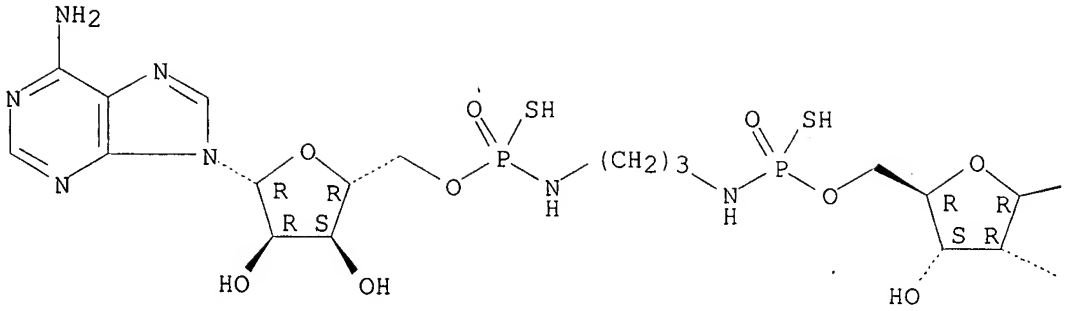


REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

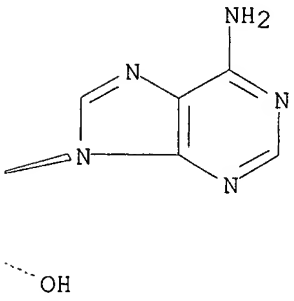
L35 ANSWER 4 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2002:510532 CAPLUS
DOCUMENT NUMBER: 137:385049
TITLE: Inhibition of ADP-triggered blood platelet aggregation by diadenosine polyphosphate analogs
AUTHOR(S): Walkowiak, Bogdan; Baraniak, Janina; Cierniewski, Czeslaw S.; Stec, Wojciech
CORPORATE SOURCE: Institute of Physiology and Biochemistry, Department of Molecular and Medical Biophysics, Medical University of Lodz, Lodz, Pol.
SOURCE: Bioorganic & Medicinal Chemistry Letters (2002), 12(15), 1959-1962
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:385049
ED Entered STN: 09 Jul 2002
AB The synthesis and biol. evaluation of new diadenosine polyphosphate analogs on blood platelet aggregation are reported. The most active are compds. with a sulfur atom replacing one or both non-bridging oxygens at phosphorus bound to adenosyl residues and hydroxymethyl groups of bis(hydroxymethyl)phosphinic acid.
IT **475646-43-6P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and structure-activity of adenosine polyphosphate analogs as inhibitors of ADP-triggered blood platelet aggregation)
RN 475646-43-6 CAPLUS
CN Adenosine, 5',5'''-[P,P'-dihydrogen 1,3-propanediylbis[phosphoramidothioate]] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 5 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 5
ACCESSION NUMBER: 2001:890933 CAPLUS
DOCUMENT NUMBER: 137:90068
TITLE: Di-, tri- and tetra-5'-O-phosphorothioadenosyl substituted polyols as inhibitors of Fhit: Importance of the α-β bridging oxygen and β phosphorus replacement
AUTHOR(S): Varnum, James M.; Baraniak, Janina; Kaczmarek, Renata; Stec, Wojciech J.; Brenner, Charles
CORPORATE SOURCE: Structural Biology & Bioinformatics Program, Kimmel Cancer Center, Philadelphia, PA, USA
SOURCE: BMC Chemical Biology [online computer file] (2001), 1, No pp. given
CODEN: BCBMBZ; ISSN: 1472-6769
URL: http://www.biomedcentral.com/1472-6769/1/3
PUBLISHER: BioMed Central Ltd.
DOCUMENT TYPE: Journal; (online computer file)
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:90068
ED Entered STN: 11 Dec 2001
AB The human FHIT gene is inactivated early in the development of many human cancers and loss of Fhit in mouse predisposes to cancer while reintroduction of FHIT suppresses tumor formation via induction of apoptosis. Fhit protein, a diadenosine polyphosphate hydrolase, does not require hydrolase activity to function in tumor suppression and may signal for apoptosis as an enzyme-substrate complex. Thus, high affinity non-hydrolyzable substrate analogs may either promote or antagonize Fhit

function, depending on their features, in Fhit + cells. Previously synthesized analogs with phosphorothioadenosyl substitutions and "supercharged" branches do not bind better than natural substrates and thus have limited potential as cellular probes. Here we link adenosine 5'-O-phosphates and phosphorothioates to short-chain polyols to generate a series of substrate analogs. We obtain structure-activity data in the form of in vitro Fhit inhibition for four types of analog substitutions and describe two compds., inhibitory consts. for which are 65 and 75-fold lower than natural substrates. The best Fhit inhibitors obtained to date sep. two or more 5'-O-phosphoromonothioadenosyl moieties with as many bond lengths as in AppppA, maintain oxygen at the location of the α-β bridging oxygen, and replace carbon for the phosphorus.

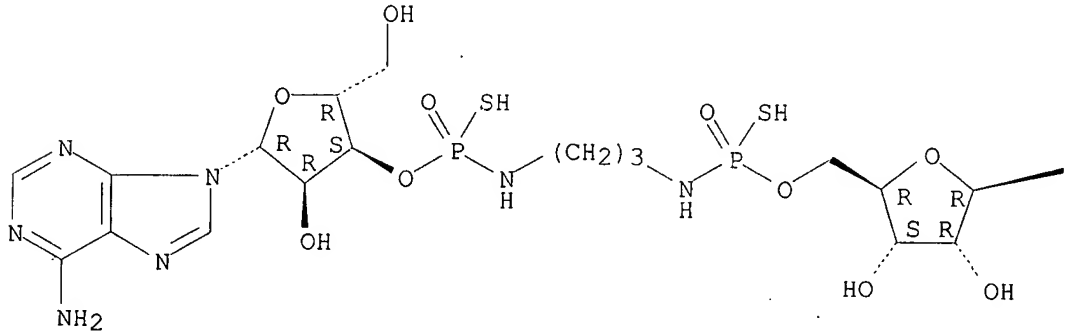
IT **442533-61-1P**
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(di-, tri- and tetra-5'-O-phosphorothioadenosyl substituted polyols as inhibitors of Fhit, a diadenosine polyphosphate hydrolase)

RN 442533-61-1 CAPLUS

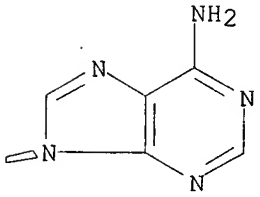
CN Adenosine, P-thioadenylylimino-1,3-propanediylimino(mercaptophosphinyliden e)-(3'→5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 6 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 6
ACCESSION NUMBER: 1997:511689 CAPLUS
DOCUMENT NUMBER: 127:126668
TITLE: Macromolecular prodrugs of nucleotide analogs
INVENTOR(S): Josephson, Lee; Groman, Ernest V.; Wu, Yong-Qian

reprint of search completed 9-26-06

PATENT ASSIGNEE(S): Advanced Magnetics, Inc., USA
SOURCE: PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9721452	A2	19970619	WO 1996-US19794	19961212
WO 9721452	A3	19971009		
W: JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5981507	A	19991109	US 1996-766597	19961212
PRIORITY APPLN. INFO.:			US 1995-8600P P	19951214
			US 1996-27325P P	19961003
			US 1996-28331P P	19961011

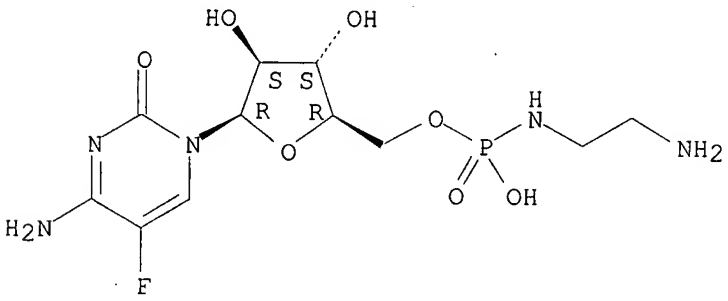
ED Entered STN: 13 Aug 1997

AB An antiviral or anticancer pharmaceutical composition comprises conjugates of dextran or starch derivs. with antiviral heterocyclic derivs. of adenine, cytosine, thymine, or guanine. Examples of nucleoside analogs include acyclovir, ribavirin, AZT or ara C. Among many examples given, a carboxymethyl dextran-ethylenediamine-deoxyfluorouridine phosphate conjugate was prepared The effect of macromol. prodrugs on HBV replication was also given.

IT **192625-64-2DP**, reaction products with dextran derivs.
192625-64-2P 192625-71-1P 192625-72-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and antiviral and anticancer effect of macromol. prodrugs of nucleotide analogs)

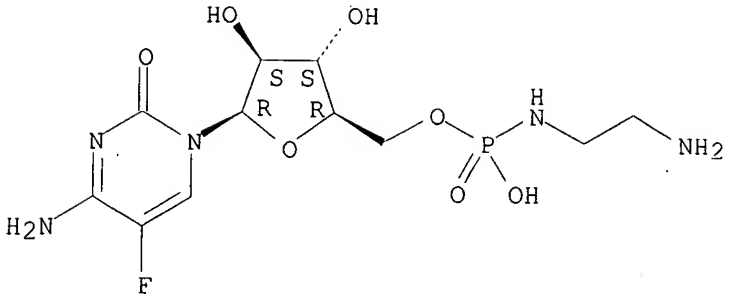
RN 192625-64-2 CAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-[5-O-[[(2-aminoethyl)amino]hydroxyphosphinyl]-β-D-arabinofuranosyl]-5-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



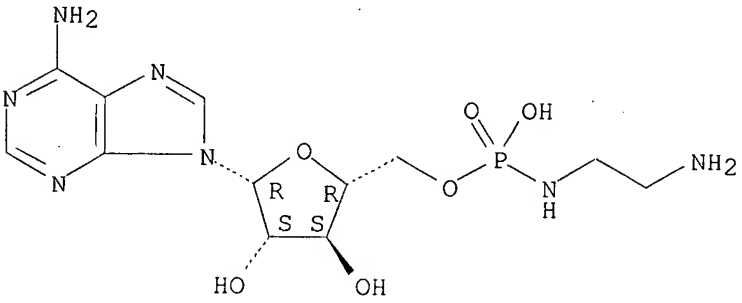
RN 192625-64-2 CAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-[5-O-[[(2-aminoethyl)amino]hydroxyphosphinyl]-β-D-arabinofuranosyl]-5-fluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



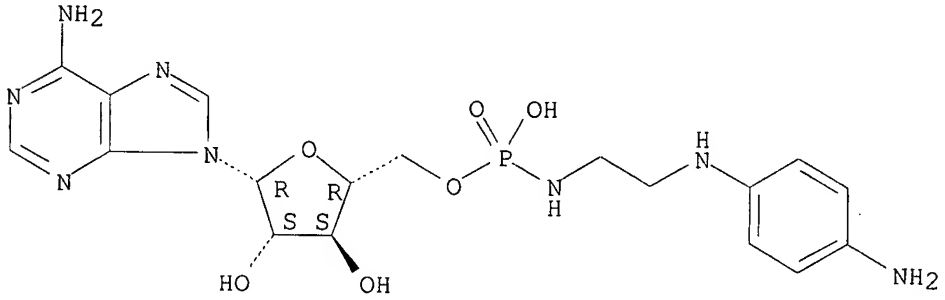
RN 192625-71-1 CAPLUS
CN 9H-Purin-6-amine, 9-[5-O-[[(2-aminoethyl)amino]hydroxyphosphinyl]-β-D-arabinofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



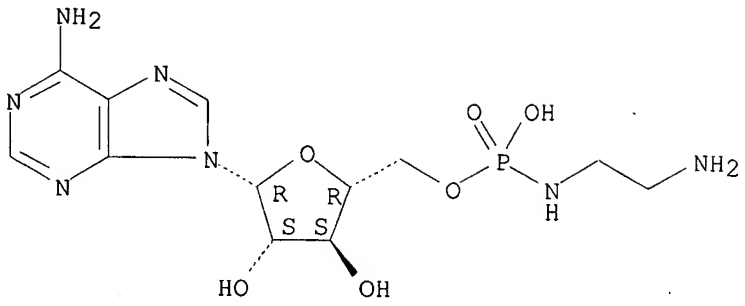
RN 192625-72-2 CAPLUS
CN 9H-Purin-6-amine, 9-[5-O-[[[2-[(4-aminophenyl)amino]ethyl]amino]hydroxyphosphinyl]-β-D-arabinofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



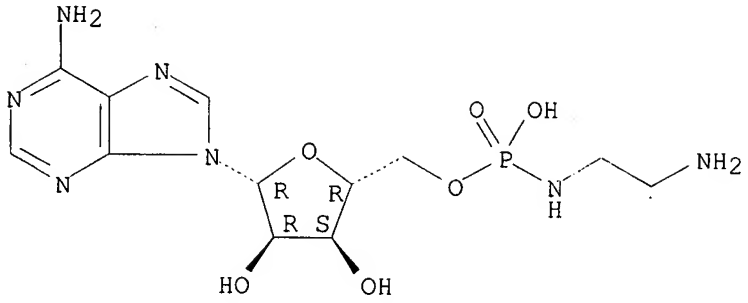
IT 192625-71-1DP, reaction products with dextran derivs.
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation and antiviral and anticancer effect of macromol. prodrugs of nucleotide analogs)
RN 192625-71-1 CAPLUS
CN 9H-Purin-6-amine, 9-[5-O-[[(2-aminoethyl)amino]hydroxyphosphinyl]-β-D-arabinofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



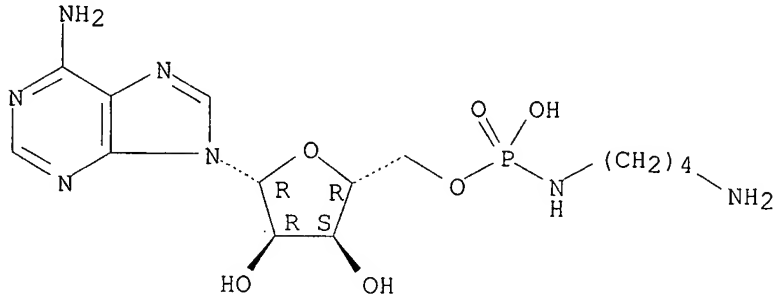
L35 ANSWER 7 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 7
ACCESSION NUMBER: 1988:570795 CAPLUS
DOCUMENT NUMBER: 109:170795
TITLE: Modification of oligo(poly)nucleotide phosphomonoester groups in aqueous solutions
AUTHOR(S): Ivanovskaya, M. G.; Gottikh, M. B.; Shabarova, Z. A.
CORPORATE SOURCE: Dep. Chem., Moscow State Univ., Moscow, 119899, USSR
SOURCE: Nucleosides & Nucleotides (1987), 6(5), 913-34
CODEN: NUNUD5; ISSN: 0732-8311
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 109:170795
ED Entered STN: 12 Nov 1988
AB Selective modification of oligo(poly)nucleotide phosphomonoester groups in an aqueous medium in the presence of N-(3-dimethylaminopropyl)-N'-ethylcarbodiimide by various nucleophilic agents was investigated. Optimal conditions of the modification by amino- and hydroxy compds. were found. Based on these studies a general efficient method for preparation of oligo(poly)nucleotide phosphoramidates and phosphodiesters in an aqueous solution was developed. The method allows to prepare both oligodeoxyribonucleotide derivs. at 3'- and 5'-terminal phosphate groups and oligoribonucleotide derivs. at 5'-terminal phosphate groups with 80-100% yields.
IT **52904-72-0P 56351-04-3P 116872-95-8P 116893-40-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 52904-72-0 CAPLUS
CN Adenosine, 5'-[hydrogen (2-aminoethyl)phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 56351-04-3 CAPLUS
CN Adenosine, 5'-[hydrogen (4-aminobutyl)phosphoramidate] (9CI) (CA INDEX NAME)

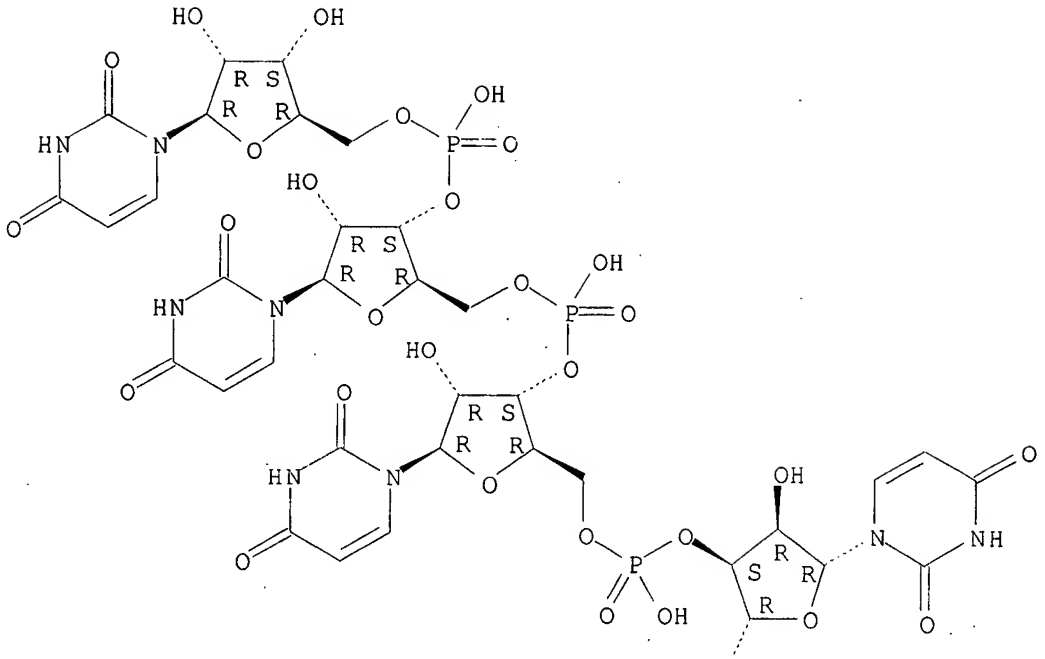
Absolute stereochemistry.



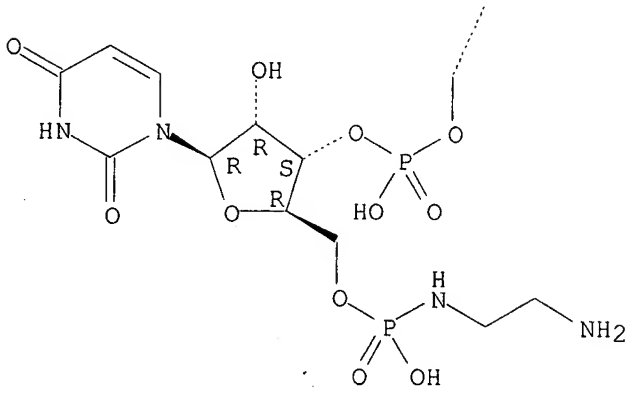
RN 116872-95-8 CAPLUS
CN Uridine, 5'-O-[[(2-aminoethyl)amino]hydroxyphosphinyl]uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



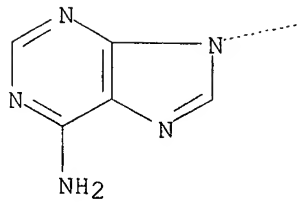
PAGE 2-A



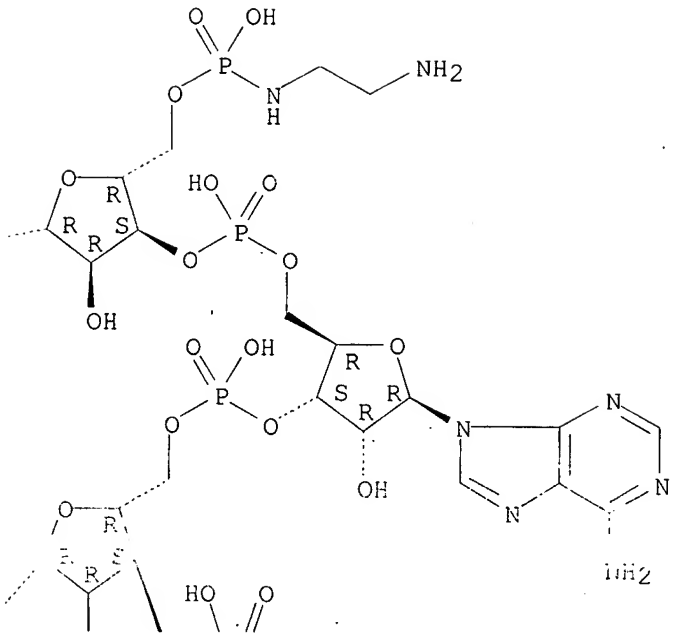
RN 116893-40-4 CAPLUS
CN Adenosine, adenylyl-(5'→3')-adenylyl-(5'→3')-adenylyl-(5'→3')-adenylyl-(5'→3')-adenylyl-(5'→3')-adenylyl-(5'→3')-adenylyl-(5'→3')-adenylyl-(5'→3')-adenylyl-(5'→3')-, 5'-[hydrogen (2-aminoethyl)phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

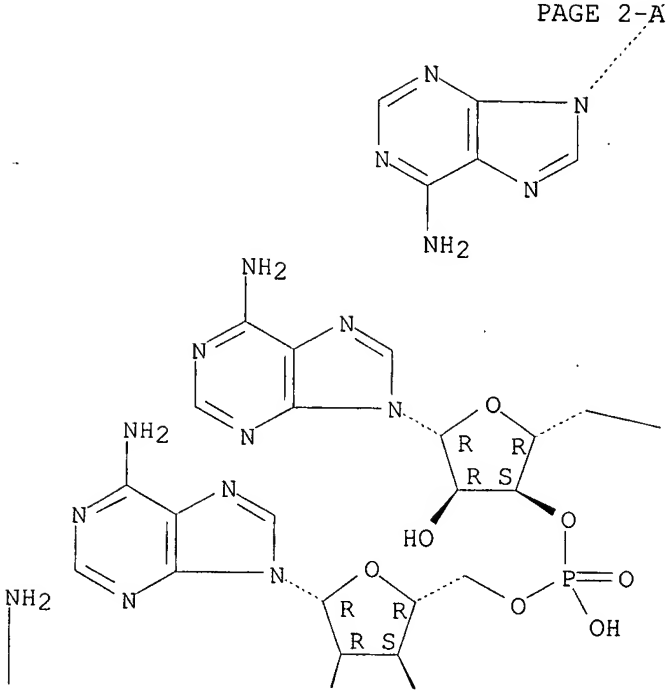


PAGE 1-B

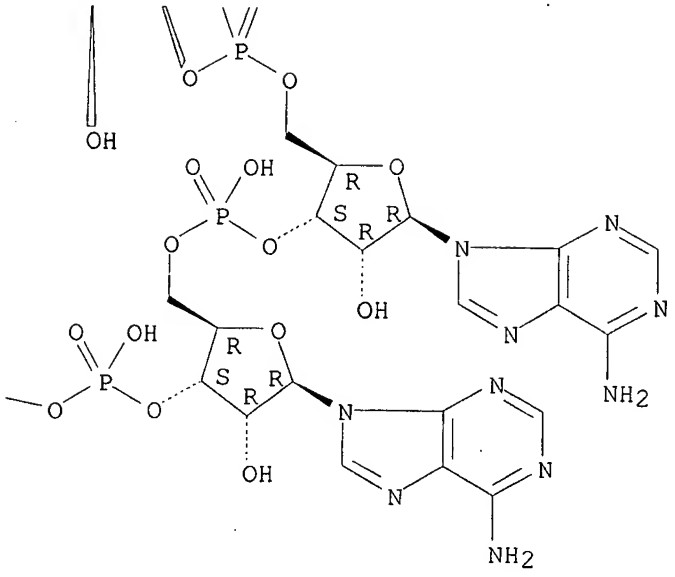


reprint of search completed 9-26-06

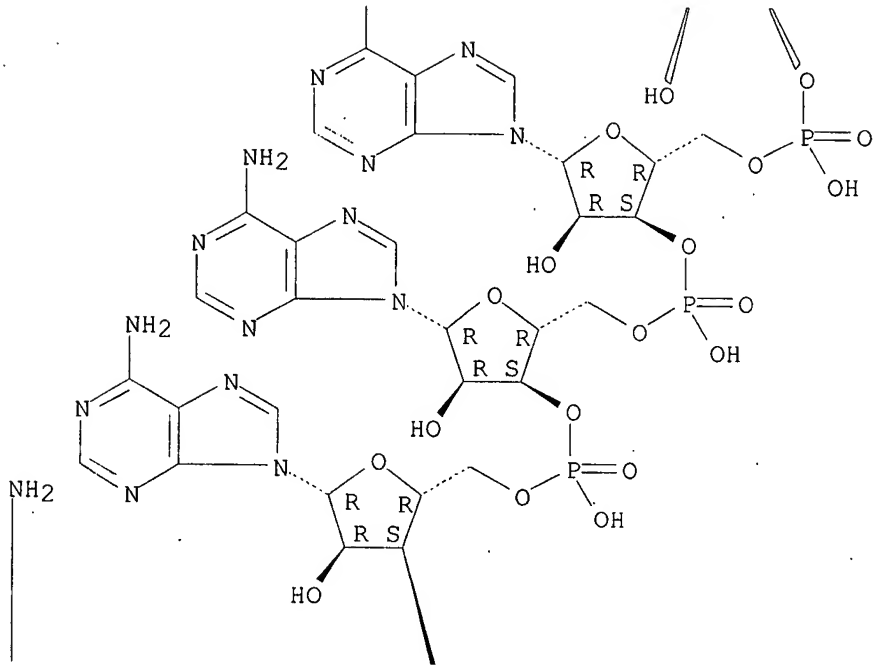
PAGE 2-A



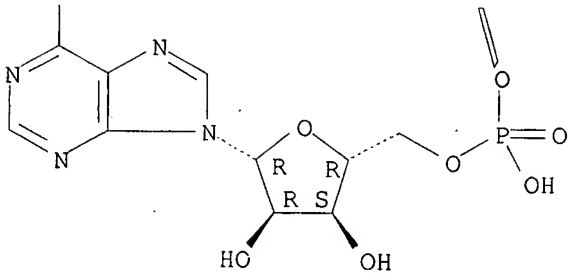
PAGE 2-B



PAGE 3-A



PAGE 4-A



L35 ANSWER 8 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:226527 CAPLUS
DOCUMENT NUMBER: 142:424478
TITLE: Novel cyanine-AMP conjugates for efficient 5' RNA fluorescent labeling by one-step transcription and replacement of [γ-32P]ATP in RNA structural investigation
AUTHOR(S): Li, Na; Yu, Changjun; Huang, Faqing
CORPORATE SOURCE: Department of Chemistry and Biochemistry, University of Southern Mississippi, Hattiesburg, MS, 39406-5043, USA
SOURCE: Nucleic Acids Research (2005), 33(4), e37/1-e37/8
CODEN: NARHAD; ISSN: 0305-1048
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English

reprint of search completed 9-26-06

ED Entered STN: 15 Mar 2005

AB Two novel fluorescent cyanine-AMP conjugates, F550/570 and F650/670, have been synthesized to serve as transcription initiators under the T7 ϕ2.5 promoter. Efficient fluorophore labeling of 5' RNA is achieved in a single transcription step by including F550/570 and F650/670 in the transcription solution The current work makes fluorescently labeled RNA readily available for broad applications in biochem., mol. biol., structural biol. and biomedicine. In particular, site-specifically fluorophore-labeled large RNAs prepared by the current method may be used to investigate RNA structure, folding and mechanism by various fluorescence techniques. In addition, F550/570 and F650/670 may replace [γ-32P]ATP to prepare 5' labeled RNA for RNA structural and functional investigation, thereby eliminating the need for the unstable and radio-hazardous [γ-32P]ATP.

IT **851035-30-8P 851035-31-9P**

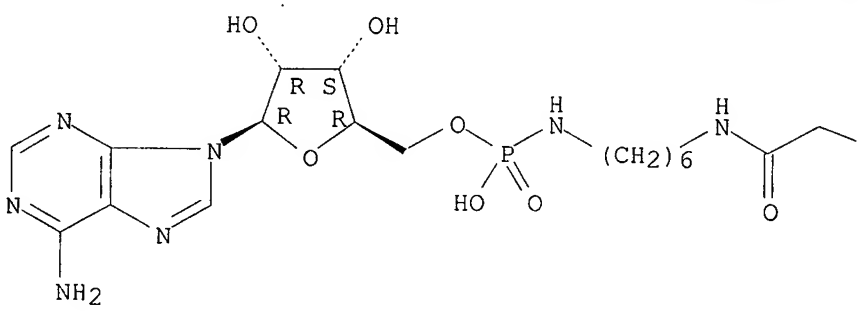
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(novel cyanine-AMP conjugates for efficient 5' RNA fluorescent labeling by one-step transcription and replacement of [γ-32P]ATP in RNA structural investigation)

RN 851035-30-8 CAPLUS

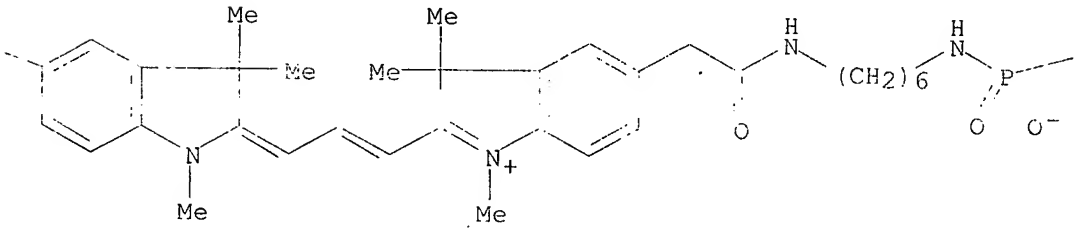
CN Adenosine, 5'-[hydrogen [6-[[[2-[3-[1,3-dihydro-1,3,3-trimethyl-5-[2-oxo-2-[[6-(phosphonoamino)hexyl]amino]ethyl]-2H-indol-2-ylidene]-1-propenyl]-1,3,3-trimethyl-3H-indolium-5-yl]acetyl]amino]hexyl]phosphoramidate], inner salt, 5'-ester with adenosine (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A

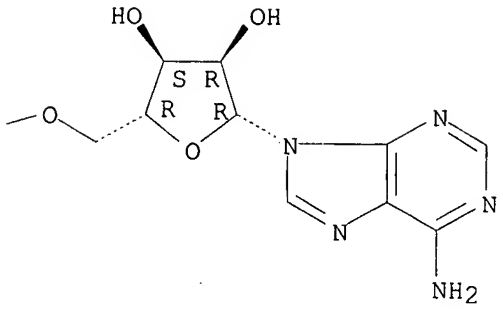


PAGE 1-B



reprint of search completed 9-26-06

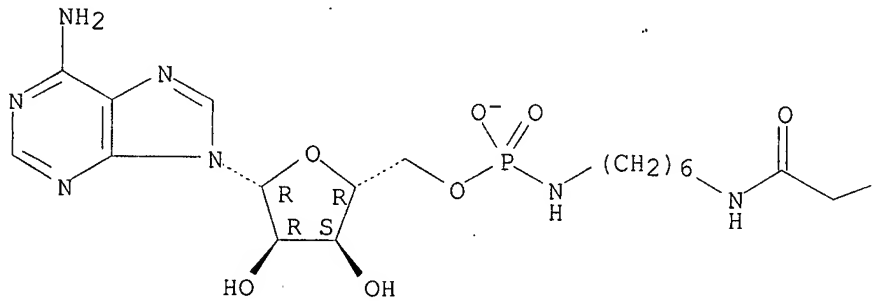
PAGE 1-C



RN 851035-31-9 CAPLUS
CN Adenosine, 5'-[hydrogen [6-[[[2-[5-[1,3-dihydro-1,3,3-trimethyl-5-[2-oxo-2-[[6-(phosphonoamino)hexyl]amino]ethyl]-2H-indol-2-ylidene]-1,3-pentadienyl]-1,3,3-trimethyl-3H-indolium-5-yl]acetyl]amino]hexyl]phosphoramidate], inner salt, 5'-ester with adenosine (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



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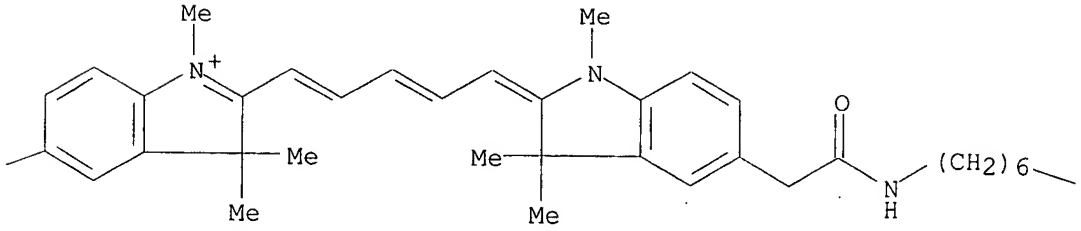

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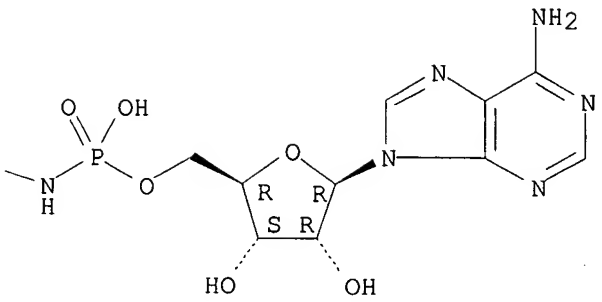
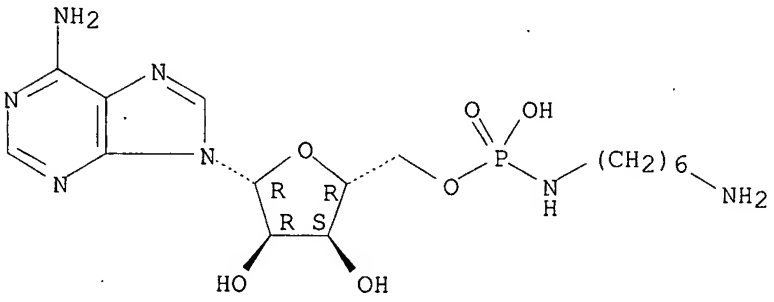


IT **56351-06-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(novel cyanine-AMP conjugates for efficient 5' RNA fluorescent labeling by one-step transcription and replacement of [γ-32P]ATP in RNA structural investigation)
RN 56351-06-5 CAPLUS
CN Adenosine, 5'-[hydrogen (6-aminohexyl)phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



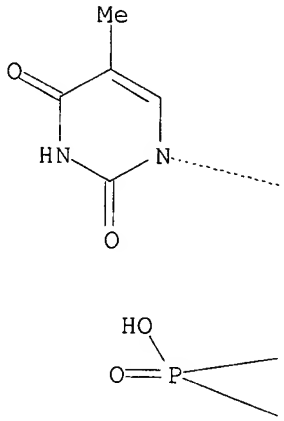
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 9 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:714457 CAPLUS
DOCUMENT NUMBER: 140:228586
TITLE: Catalytic DNA and RNA for Targeting MDR1 mRNA
AUTHOR(S): Kuznetsova, M.; Fokina, A.; Lukin, M.; Repkova, M.; Venyaminova, A.; Vlassov, V.
CORPORATE SOURCE: Novosibirsk Institute of Bioorganic Chemistry SB RAS, Novosibirsk, 630090, Russia
SOURCE: Nucleosides, Nucleotides & Nucleic Acids (2003), 22(5-8), 1521-1523
CODEN: NNNAFY; ISSN: 1525-7770
PUBLISHER: Marcel Dekker, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 11 Sep 2003
AB Design, synthesis and properties of catalytic NAs for targeting MDR1 mRNA are reported.

IT **668479-40-1**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(effector; catalytic DNA and RNA for targeting MDR1 mRNA)
RN 668479-40-1 CAPLUS
CN Thymidine, 5'-O-[hydroxy[[2-[[10-(2-hydroxyethyl)phenazinium-2-yl]amino]ethyl]amino]phosphinyl]-2'-O-methyluridylyl-(3'→5')-2'-O-methylguanylyl-(3'→5')-2'-O-methylguanylyl-(3'→5')-2'-O-methyladenylyl-(3'→5')-2'-O-methyladenylyl-(3'→5')-2'-O-methylguanylyl-(3'→3')-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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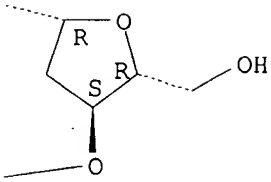

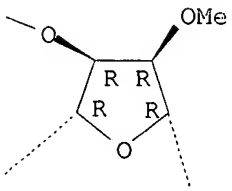

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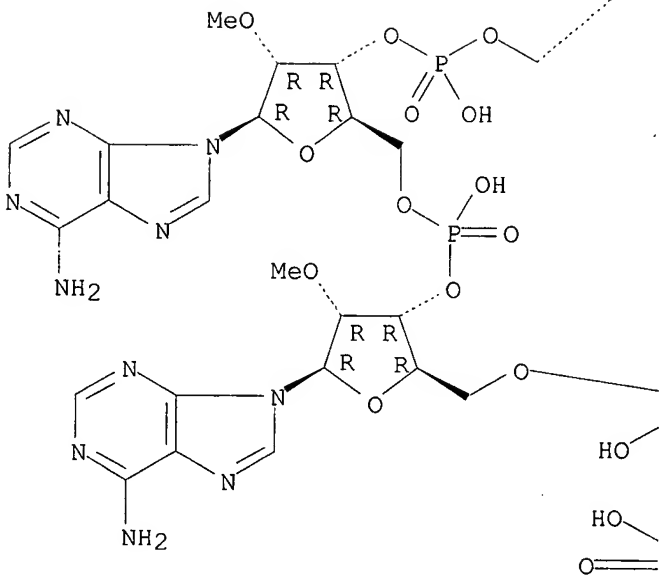

reprint of search completed 9-26-06

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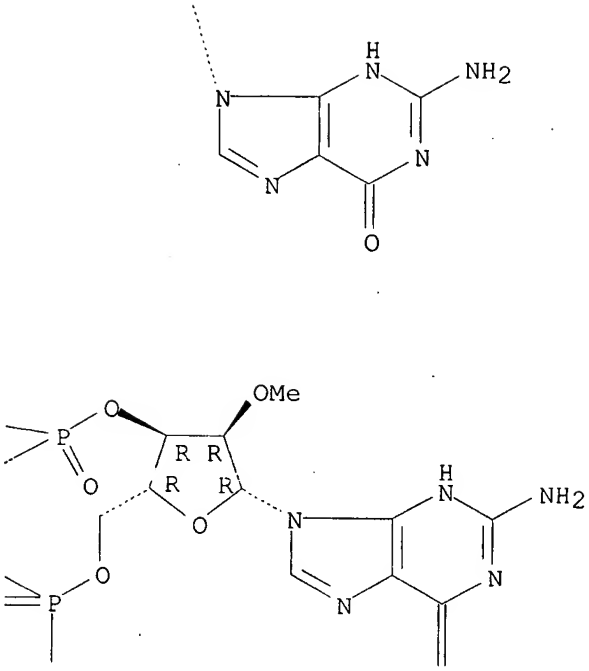

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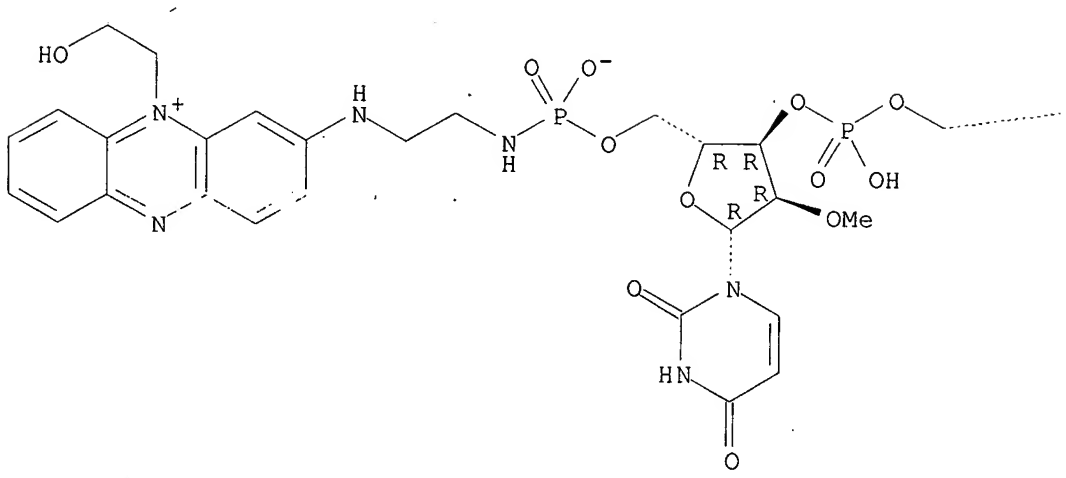

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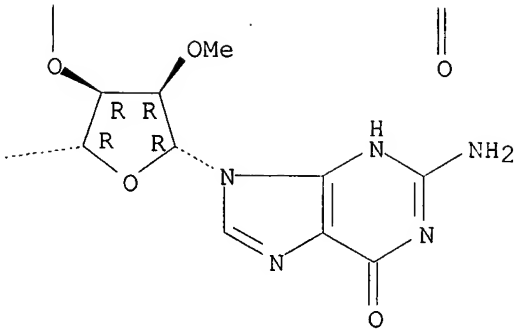


REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 10 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:295361 CAPLUS
DOCUMENT NUMBER: 133:116286
TITLE: Environment of the 5'-terminal nucleotide of the mRNA codon at the P and E sites of human ribosome: crosslinking with pUUUGUU derivatives bearing a photoactivatable group at an uracil residue or 5'-phosphate
AUTHOR(S): Graifer, D. M.; Demeshkina, N. A.; Bulygin, K. N.; Repkova, M. N.; Venyaminova, A. G.; Karpova, G. G.
CORPORATE SOURCE: Novosibirsk Institute of Bioorganic Chemistry, Siberian Division, Russian Academy of Sciences, Novosibirsk, 630090, Russia
SOURCE: Molecular Biology (Translation of Molekulyarnaya Biologiya (Moscow)) (2000), 34(2), 237-243
CODEN: MOLBBJ; ISSN: 0026-8933
PUBLISHER: MAIK Nauka/Interperiodica Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 09 May 2000
AB Photoaffinity crosslinking was carried out between 80S ribosomes from human placenta and mRNA analogs, namely, derivs. of hexaribonucleotide pUUUGUU (comprising Phe and Val codons) with a perfluoroarylazido group at the C5 atom of the uracil residue at the first position, or at the 5'-terminal phosphate. Three types of ribosome complex with 5'-32P-labeled derivs. of pUUUGUU were studied: (1) with Phe-tRNAPhe and codon UUU at the P site; (2) with tRNAPhe and codon UUU at the P site and Phe Val-tRNAVal and codon GUU at the A site; (3) with Val-tRNAVal and codon GUU at the P site (codon UUU at the E site). Upon mild UV irradiation (>280 nm) of the complexes, the pUUUGUU derivs. were crosslinked to 18S rRNA and proteins in the ribosomal small subunit. In the absence of tRNA, no modification of ribosomes occurred. Nucleotides of 18S rRNA crosslinked to the mRNA analogs were identified using the reverse transcriptase anal. It turned out that the photoactivatable group at the first nucleotide of codon pUUU at the P site is only crosslinked with G-1207 of 18S rRNA, whether this group is at the 5'-phosphate or the C5 atom of the uracil residue. If codon UUU is located at the E site, the pUUUGUU derivative with the photoactivatable group at the uracil residue modifies G-961 of 18S rRNA, which is for the first time found at the mRNA-binding center of 80S ribosomes.
IT 285567-24-0

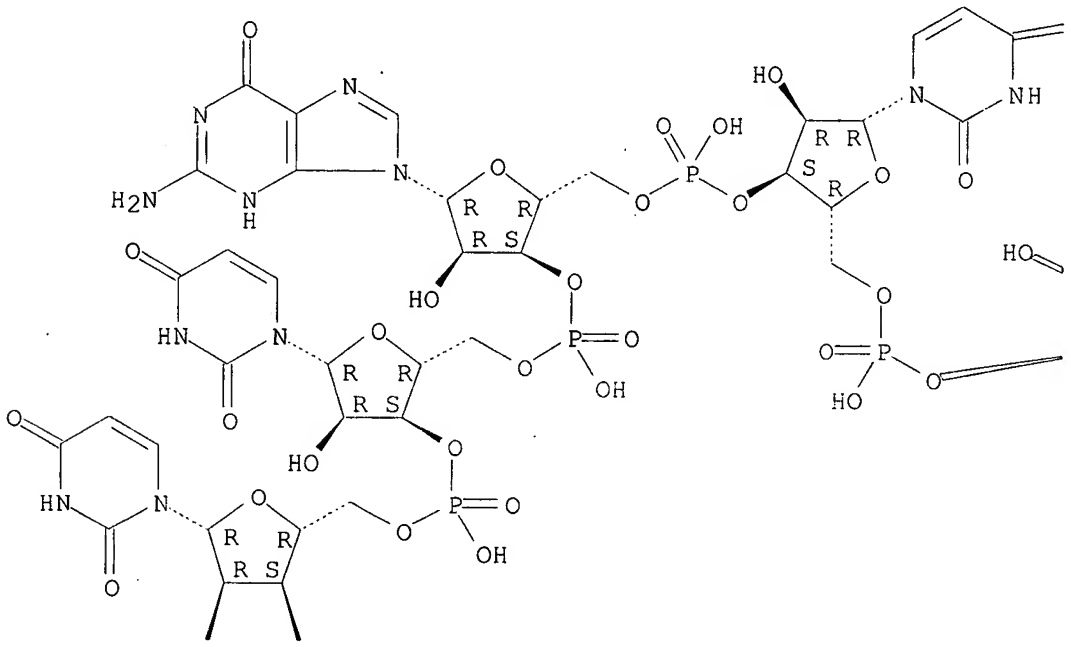
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
(environment of the 5'-terminal nucleotide of the mRNA codon at the P and E sites of human ribosome and crosslinking with pUUUGUU derivs. bearing a photoactivatable group at an uracil residue or 5'-phosphate)

RN 285567-24-0 CAPLUS

CN Uridine, 5'-O-[[[2-[(4-azido-2,3,5,6-tetrafluorobenzoyl)amino]ethyl]amino]hydroxyphosphinyl-32P]uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-guanylyl-(3'→5')-uridylyl-(3'→5')-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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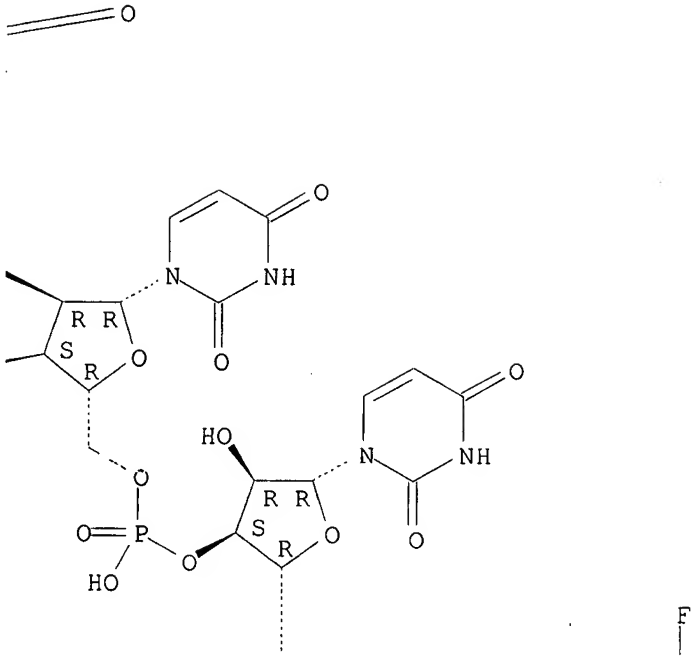

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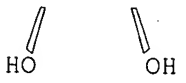

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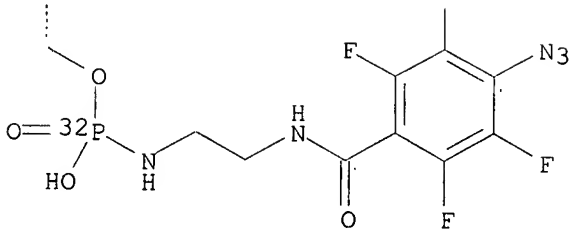


REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

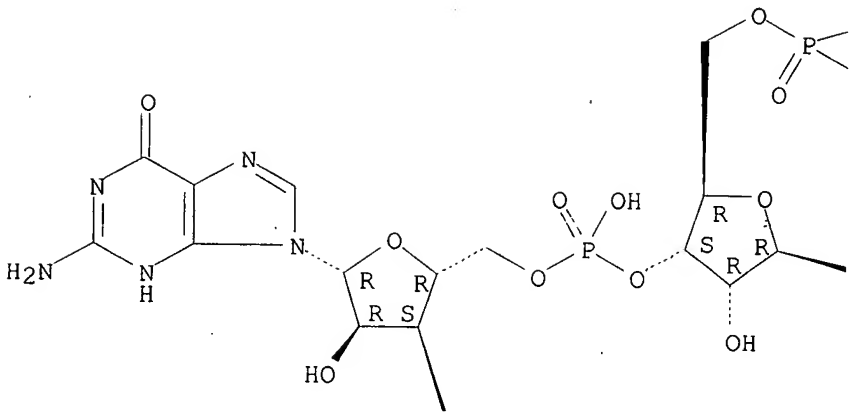
L35 ANSWER 11 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:312308 CAPLUS
DOCUMENT NUMBER: 129:78008
TITLE: Localization of template in the decoding area by affinity modification of human ribosomes with photoactivated derivative of oligoribonucleotide pGUGUUU
AUTHOR(S): Smolenskaya, I. A.; Bulygin, K. N.; Graifer, D. M.;

reprint of search completed 9-26-06

Ivanov, A. V.; Ven'yaminova, A. G.; Repkova, M. N.; Karpova, G. G.
CORPORATE SOURCE: Siberian Division, Institute of Bioorganic Chemistry, Russian Academy of Sciences, Novosibirsk, 630090, Russia
SOURCE: Molecular Biology (Translation of Molekulyarnaya Biologiya (Moscow)) (1998), 32(2), 200-207
CODEN: MOLBBJ; ISSN: 0026-8933
PUBLISHER: Consultants Bureau
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 28 May 1998
AB An mRNA analog, a photoactivated derivative of oligoribonucleotide pGUGUUU containing valine (GUG) and phenylalanine (UUU) codons with an arylazide group at the 5' terminus, was used for affinity modification of human 80S ribosomes. During the modification, the position of template codons at the P and A sites or at the P and E sites of the ribosome was controlled using related tRNAs. Only the 40S subunits were modified in all cases. In a complex with one Val-tRNAVal at the P site, 18S rRNA was modified to a greater extent, while the proteins (S2) were modified in a lesser degree. In all complexes with Phe-tRNAPhe, proteins were modified to a higher extent and their set depended on the type of complex: the mRNA analog was cross-linked mainly with S6 and S26 proteins (slightly with S30 protein) when deacylated tRNAVal was at the E site and Phe-tRNAPhe at the P site, but S2 and S6 proteins were modified to a greater extent (S26 protein to a smaller extent) when Val-tRNAVal was directed to the P site and Phe-tRNAPhe to the A site. Proteins S2 and S6, and to a smaller extent S26, were modified in the presence of one Phe-tRNAPhe at the P site. Crosslinking with a single residue G1207 of 18S rRNA was detected in all cases. The comparison of the results obtained with the data on modification of human 80S ribosomes with a 5' alkylating derivative of pGUGUUU provides more insight into the position of template in the decoding area of 80S ribosomes.
IT **209392-61-0P**
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(localization of template in decoding area by affinity modification of human ribosomes with photoactivated derivative of oligoribonucleotide pGUGUUU)
RN 209392-61-0 CAPLUS
CN Uridine, 5'-O-[[[2-[(4-azido-2,3,5,6-tetrafluorobenzoyl)amino]-1-methylethyl]amino]hydroxyphosphinyl-32P]guanylyl-(3'→5')-uridylyl-(3'→5')-guanylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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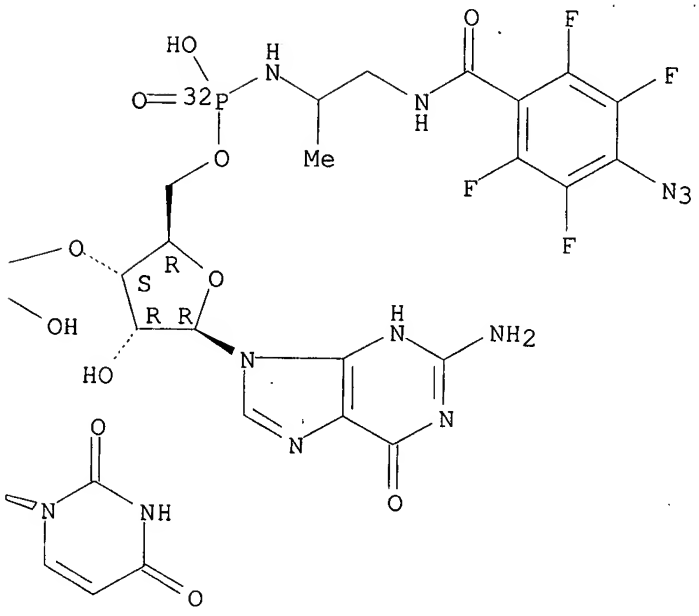

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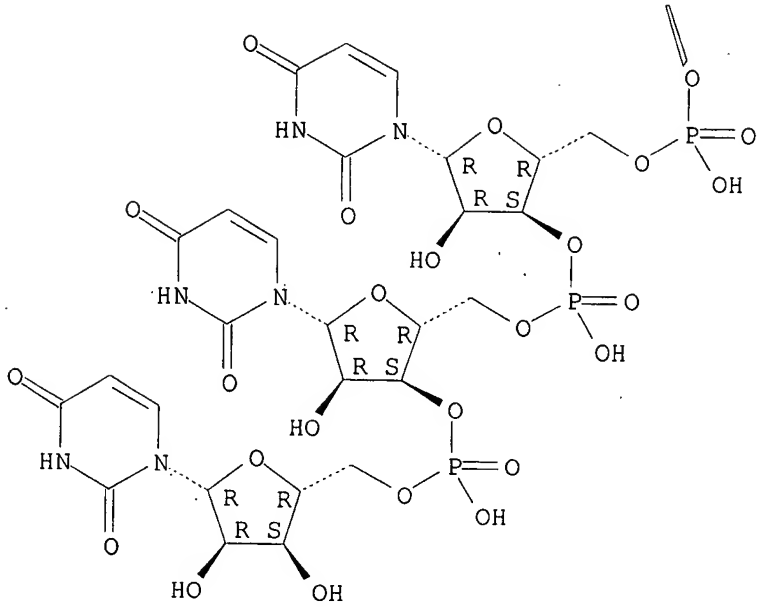
PAGE 2-A



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 12 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:483492 CAPLUS
DOCUMENT NUMBER: 127:140550
TITLE: Ligands to enhance cellular uptake of biomolecules
INVENTOR(S): Ts'o, Paul O. P.; Hangeland, Jon J.; Lee, Yuan C.
PATENT ASSIGNEE(S): Johns-Hopkins University, USA
SOURCE: PCT Int. Appl., 81 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9720563	A1	19970612	WO 1996-IB1442	19961122
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2238379	AA	19970612	CA 1996-2238379	19961122
AU 9710393	A1	19970627	AU 1997-10393	19961122
EP 862439	A1	19980909	EP 1996-941146	19961122
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CN 1211923	A	19990324	CN 1996-199495	19961122
CN 1120707	B	20030910		
US 5994517	A	19991130	US 1996-755062	19961122

JP 2000501414	T2	20000208	JP 1997-521121	19961122
TW 520293	B	20030211	TW 1996-85114401	19961122
US 2003119724	A1	20030626	US 2001-888164	20010622
CA 2451650	AA	20030814	CA 2002-2451650	20020621
WO 2003067209	A2	20030814	WO 2002-US19908	20020621
WO 2003067209	A3	20031127		

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2002365420	A1	20030902	AU 2002-365420	20020621
EP 1409548	A2	20040421	EP 2002-805692	20020621

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CN 1555385	A	20041215	CN 2002-816365	20020621
JP 2005518201	T2	20050623	JP 2003-566511	20020621
US 2006183886	A1	20060817	US 2005-256476	20051021
PRIORITY APPLN. INFO.:			US 1995-7480P	P 19951122
			US 1996-755062	A2 19961122
			WO 1996-IB1442	W 19961122
			US 1999-282455	B1 19990331
			US 2001-888164	A 20010622
			WO 2002-US19908	W 20020621

ED Entered STN: 04 Aug 1997

AB Oligodeoxynucleoside methylphosphonate neoglycopeptide conjugates and related compds. are provided for tissue-specific delivery of biol. stable, nonionic oligodeoxynucleoside analogs into cells by receptor-mediated endocytosis. The conjugates are of the form ALP (A = ligand, e.g. a neoglycopeptide, which binds specifically to tissue-specific cell surface receptors for prodrug targeting; L = bifunctional linker; P = biol. stable prodrug, especially an oligonucleoside with internucleotide linkages resistant to enzymic hydrolysis or biodegrdn., which is released and activated by hydrolysis or reduction of specific biochem. linkages). The internucleotide linkages are especially phosphorothioate and/or methylphosphonate linkages. Antisense oligonucleoside conjugates may be used to inhibit synthesis of specific proteins. Thus, a triantennary N-acetylgalactosaminosylhexylamin o Tyr-L-Glu-δ-Gln neoglycopeptide was coupled via a 4-(N-methylmaleimido)cyclohexanecarboxylate linker and 2-aminoethanethiol with 32P-labeled methylphosphonate-linked thymidine heptanucleotide capped with 2-O-methyluridylic acid 2-aminoethylamide. This conjugate, when injected i.v. into mice, became associated principally with the liver (52% of the initial dose after 15 min); this association depended entirely on the presence of N-acetylgalactosamine residues in the mol.

IT **192574-41-7P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

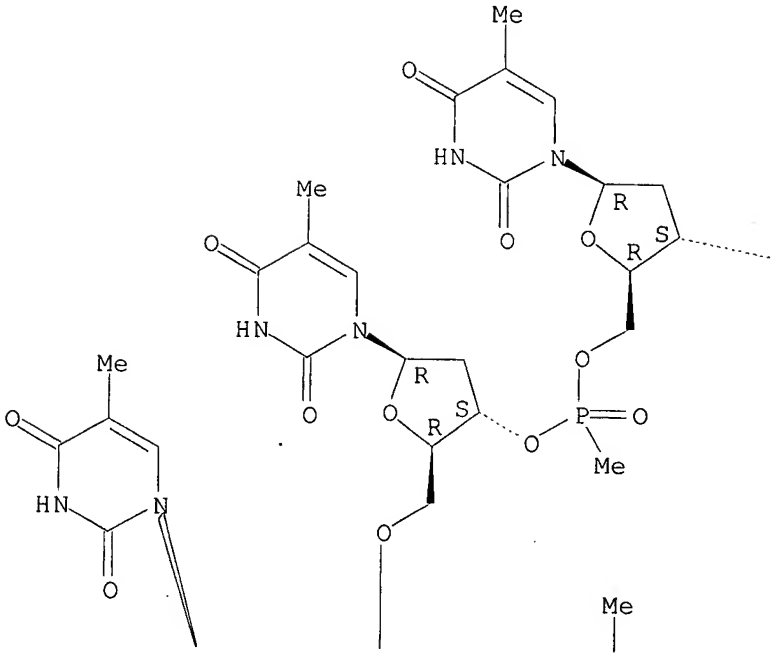
(ligands to enhance cellular uptake of biomols.)

RN 192574-41-7 CAPLUS

CN Thymidine, 5'-O-[[(2-aminoethyl)amino]hydroxyphosphinyl]-2'-O-methyluridylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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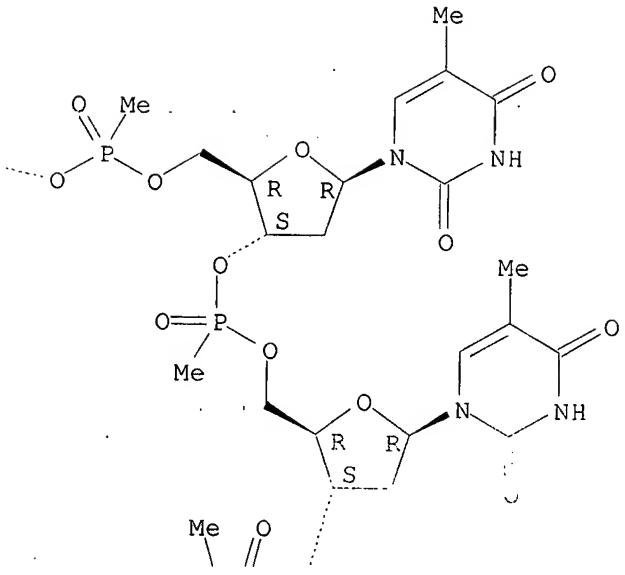

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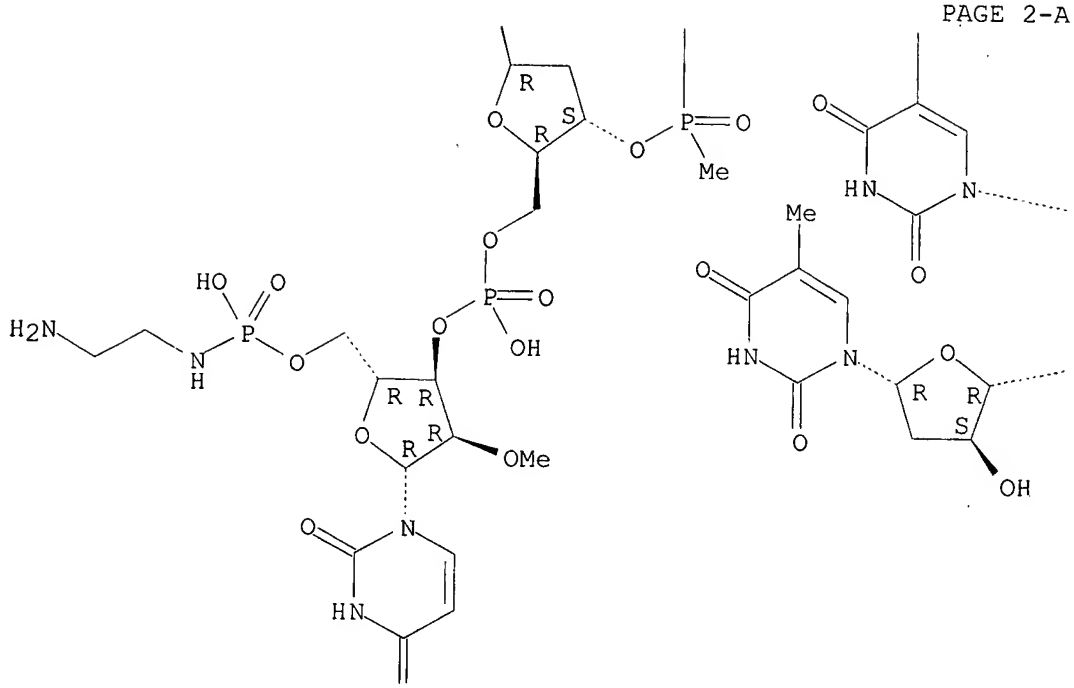
PAGE 2-A



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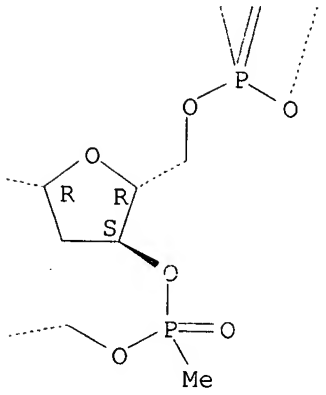


PAGE 3-A

L35 ANSWER 13 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:758588 CAPLUS
DOCUMENT NUMBER: 128:99038
TITLE: New photoreactive RNA analogs
AUTHOR(S): Repkova, M. N.; Venyammova, A. G.; Zarytova, V. F.

reprint of search completed 9-26-06

CORPORATE SOURCE: Siberian Division of RAS, Novosibirsk Institute of Bioorganic Chemistry, Novosibirsk, Russia
SOURCE: Nucleosides & Nucleotides (1997), 16(7-9), 1797-1798
CODEN: NUNUD5; ISSN: 0732-8311
PUBLISHER: Marcel Dekker, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 05 Dec 1997

AB The synthesis and study of hybridization and modification ability of the new oligoribonucleotide derivs. bearing p-azidotetrafluorobenzoic acid residue at the 5'-terminal phosphate is described.

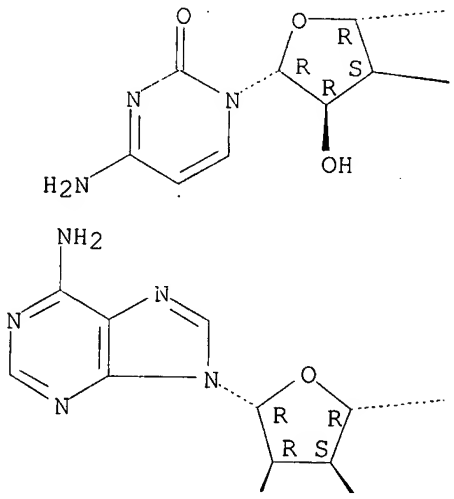
IT **201412-33-1 201412-34-2 201412-35-3**
201412-36-4
RL: PRP (Properties)
(thermal stability of duplexes formed with photoreactive RNA analogs)

RN 201412-33-1 CAPLUS

CN Adenosine, 5'-O-[[[3-[(4-azido-2,3,5,6-tetrafluorobenzoyl)amino]propyl]amino]hydroxyphosphinyl]cytidylyl-(3'→5')-adenylyl-(3'→5')-adenylyl-(3'→5')-adenylyl-(3'→5')-cytidylyl-(3'→5')-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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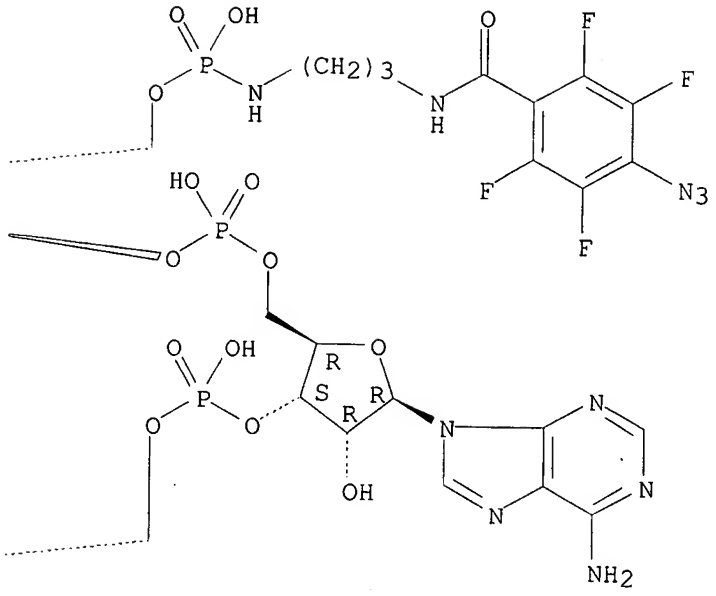

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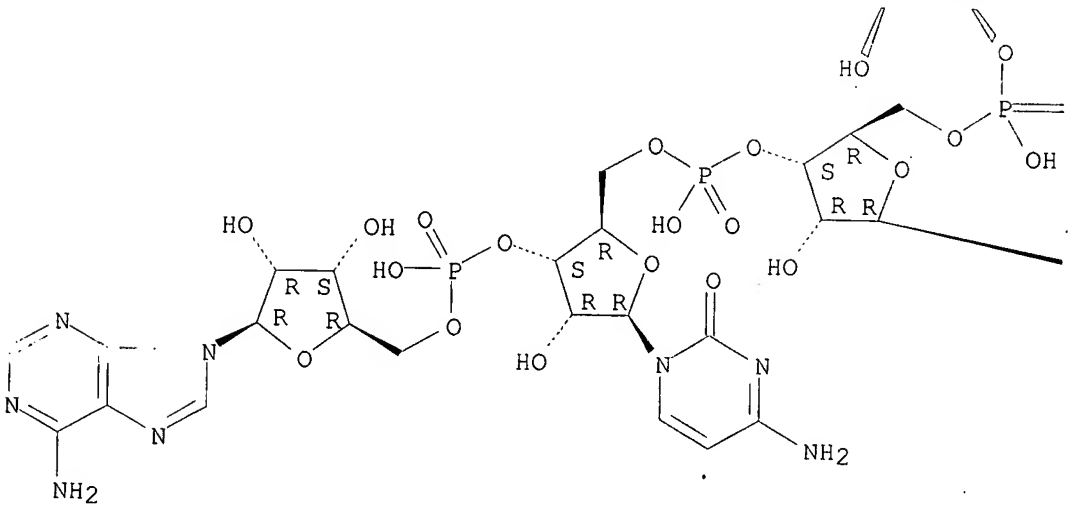

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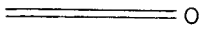

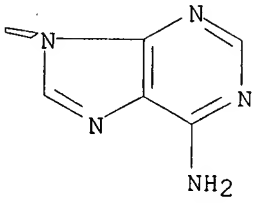

RN 201412-34-2 CAPLUS
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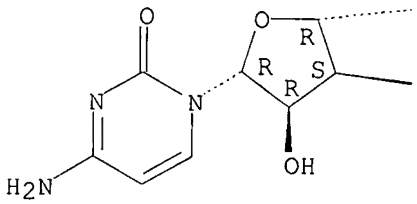
Absolute stereochemistry.

PAGE 1-A



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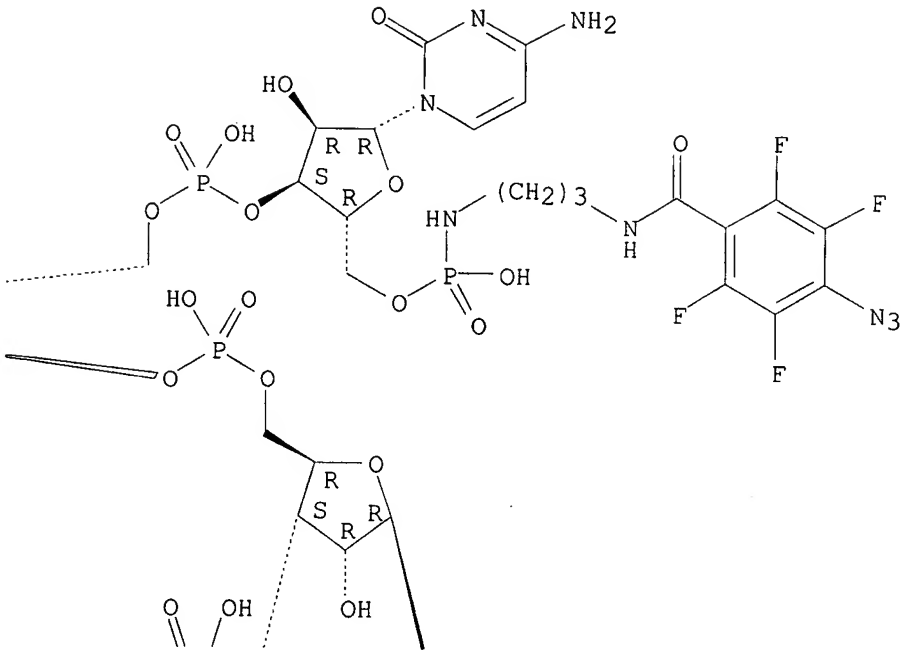

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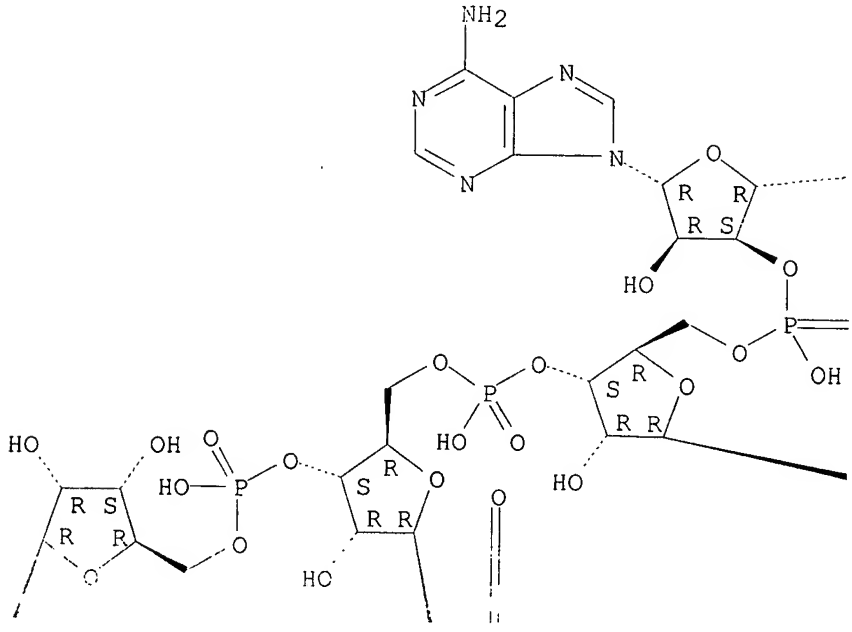

reprint of search completed 9-26-06

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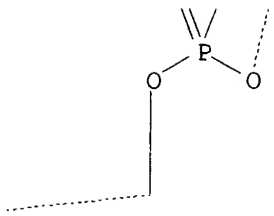

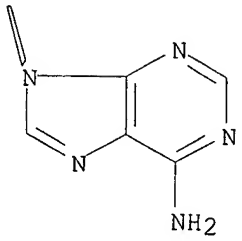

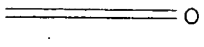

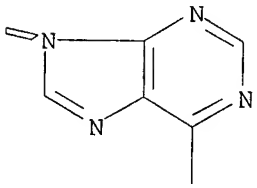

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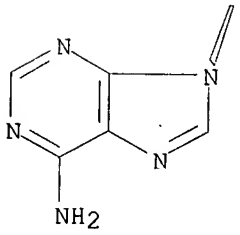
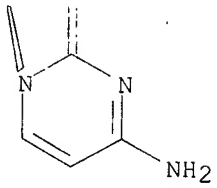




PAGE 3-B

RN 201412-35-3 CAPLUS

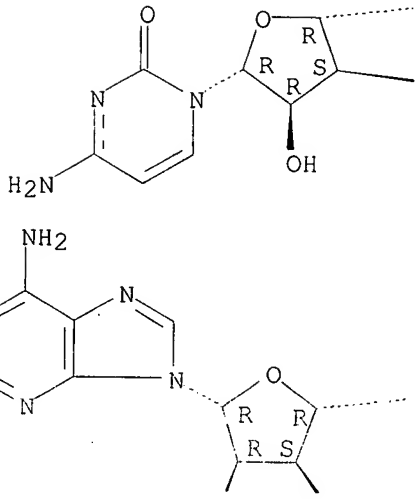
CN Adenosine, 5'-O-[[[3-[(4-azido-2,3,5,6-tetrafluorobenzoyl)amino]propyl]amino]hydroxyphosphinyl]cytidylyl-(3'→5')-adenylyl-(3'→5')-[illegible], complex with uridylyl-(3'→5')-guanylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-guanylyl-(3'→5')-guanylyl-(3'→5')-cytidine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 201412-33-1
CMF C68 H81 F4 N31 O39 P6

Absolute stereochemistry.

PAGE 1-A



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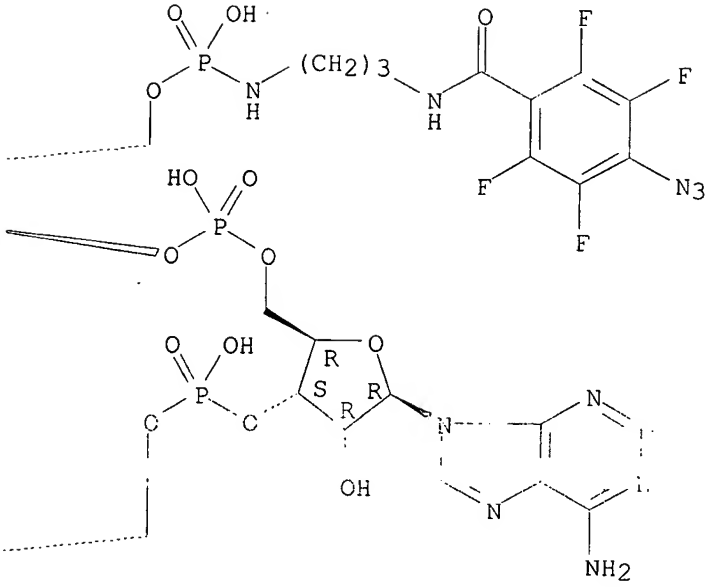

reprint of search completed 9-26-06

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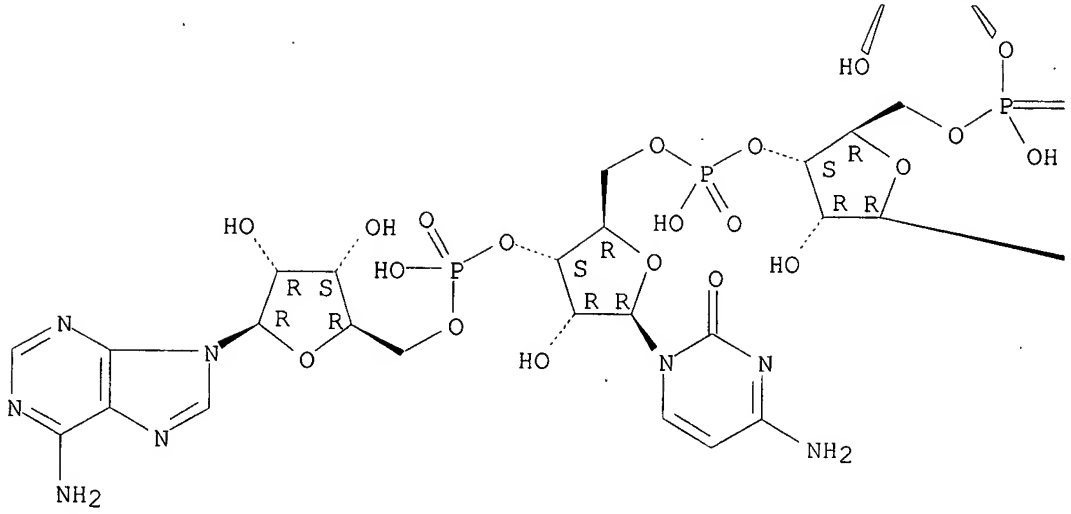

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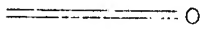
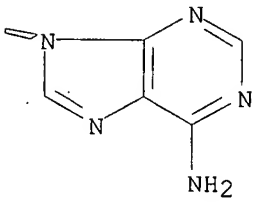


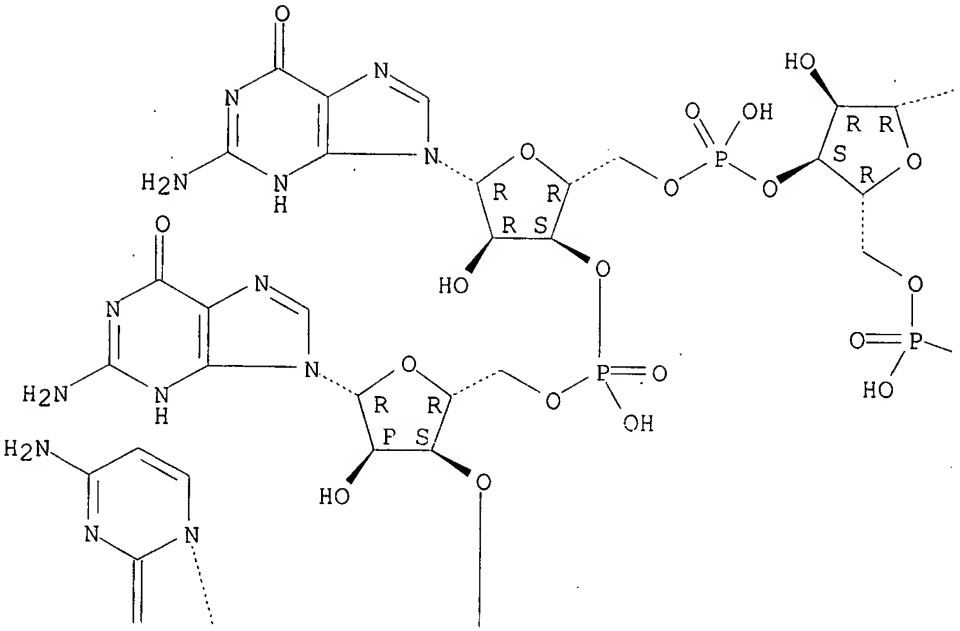


CM 2

CRN 149438-10-8
CMF C75 H93 N26 O58 P7

Absolute stereochemistry.

PAGE 1-A



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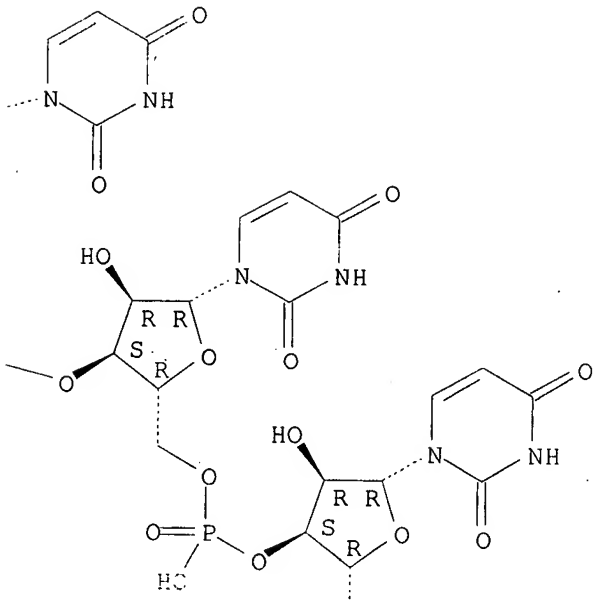

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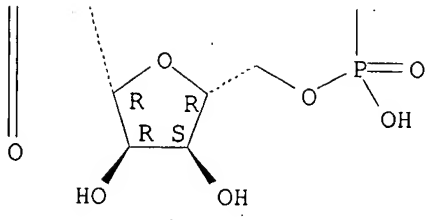

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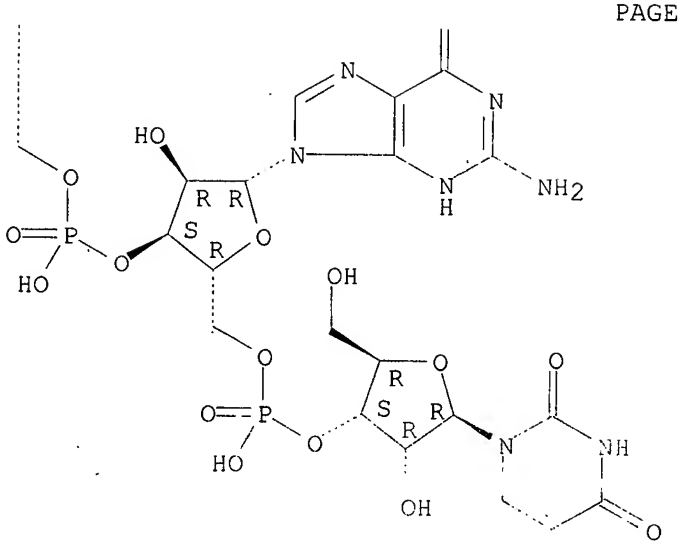


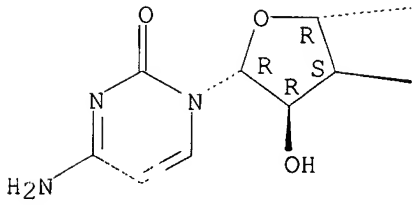
RN 201412-36-4 CAPLUS
CN Adenosine, 5'-O-[[[3-[(4-azido-2,3,5,6-tetrafluorobenzoyl)amino]propyl]amino]hydroxyphosphinyl]cytidylyl-(3'→5')-cytidylyl-(3'→5')-adenylyl-(3'→5')-adenylyl-(3'→5')-adenylyl-(3'→5')-cytidylyl-(3'→5')-, complex with uridylyl-(3'→5')-guanylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-guanylyl-(3'→5')-guanylyl-(3'→5')-cytidine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 201412-34-2
CMF C77 H93 F4 N34 O46 P7

Absolute stereochemistry.

PAGE 1-A



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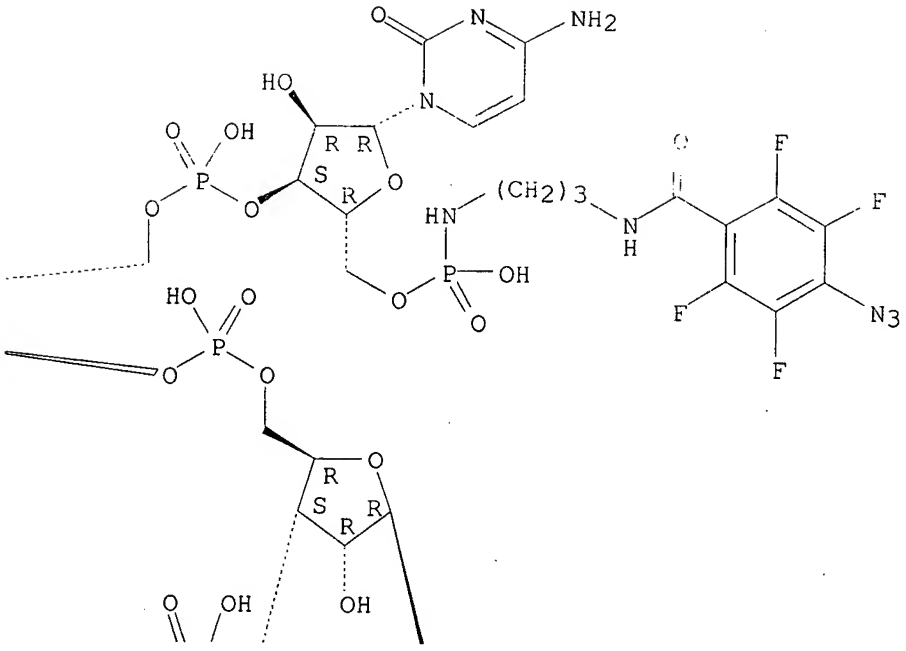

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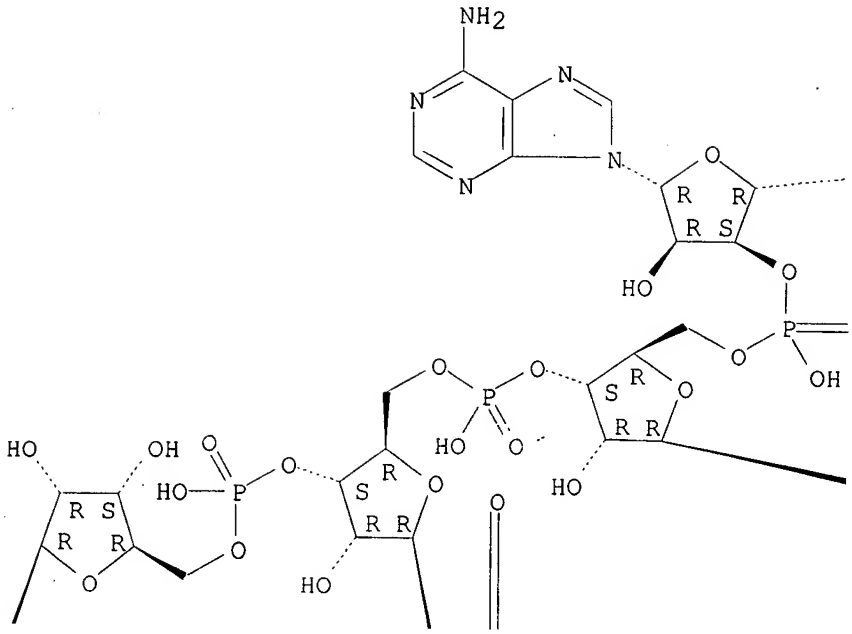

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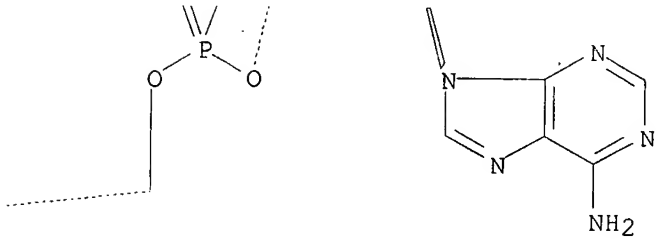

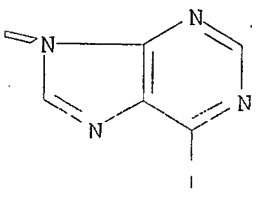

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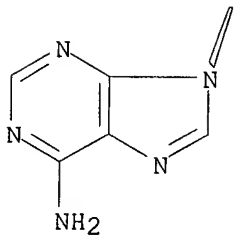
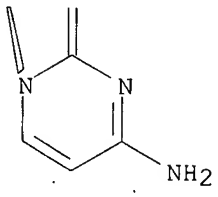




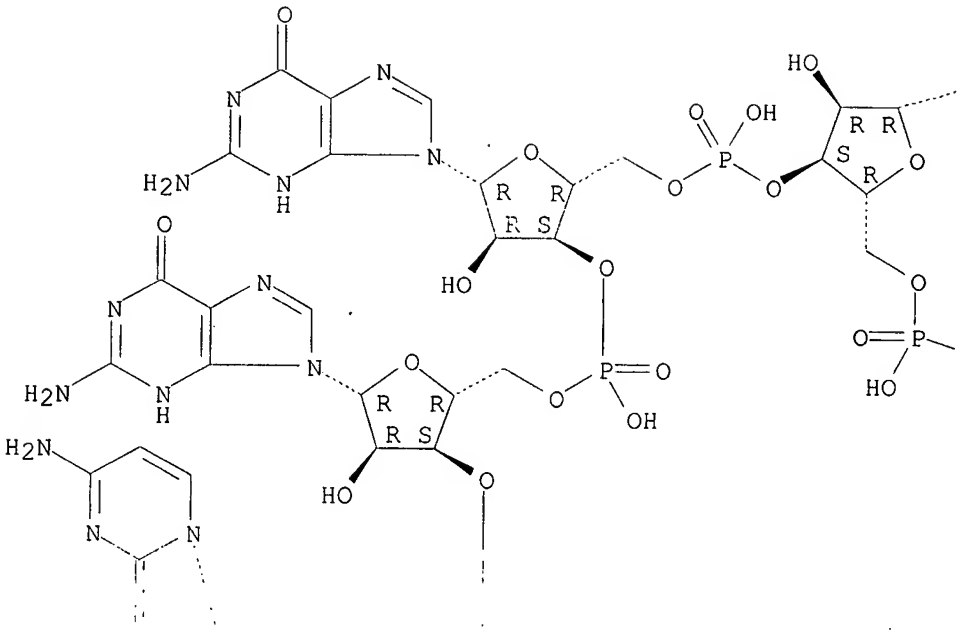
PAGE 3-B

CM 2

CRN 149438-10-8
CMF C75 H93 N26 O58 P7

Absolute stereochemistry.

PAGE 1-A



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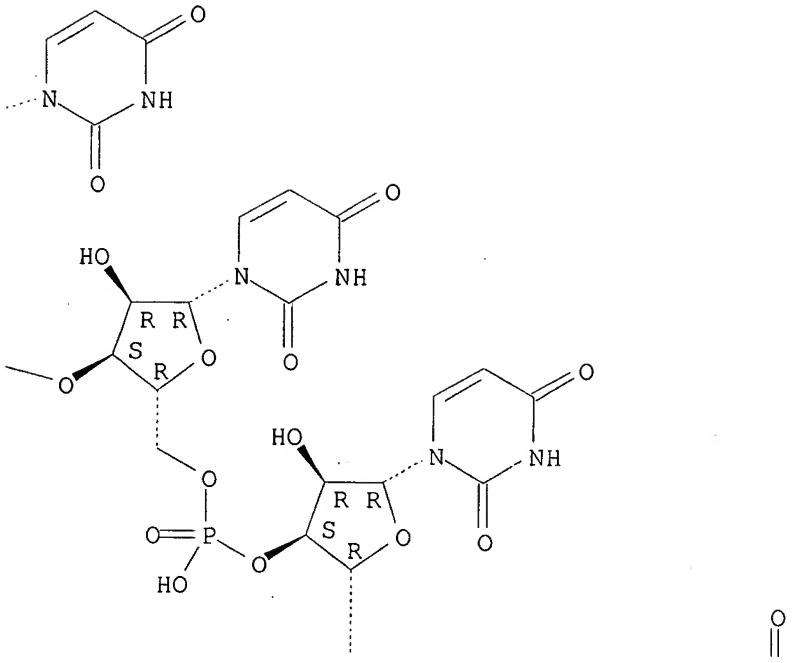

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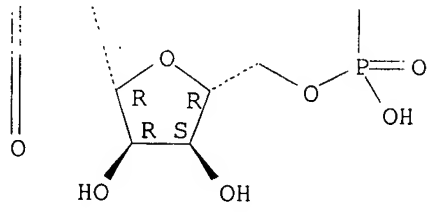

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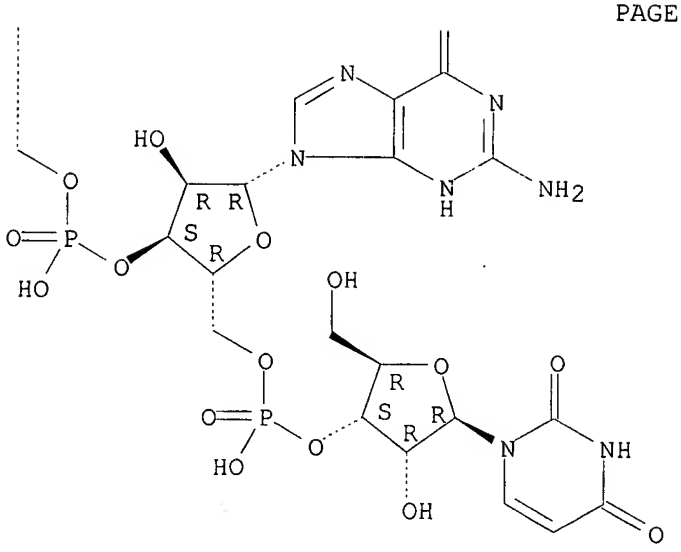


REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 14 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:382890 CAPLUS
DOCUMENT NUMBER: 125:52527
TITLE: Radioactive phosphorous labeling of proteins for targeted radiotherapy
INVENTOR(S): Griffiths, Gary L.; Hansen, Hans J.; Karacay, Habibe
PATENT ASSIGNEE(S): Immunomedics, Inc., USA
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9611208	A1	19960418	WO 1995-US11780	19950921
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5728369	A	19980317	US 1994-318917	19941005
CA 2200855	AA	19960418	CA 1995-2200855	19950921
CA 2200855	C	20010410		
AU 9536770	A1	19960502	AU 1995-36770	19950921
EP 781288	B1	19980826	EP 1995-934432	19950921
EP 781288	A1	19970702		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 10509425	T2	19980914	JP 1996-512583	19950921
AT 331728	E	20060715	AT 1995-934432	19950921
IL 115416	A1	20000726	IL 1995-115416	19950922
US 5976492	A	19991102	US 1997-974952	19971120

reprint of search completed 9-26-06

PRIORITY APPLN. INFO.: US 1994-318917 A 19941005
WO 1995-US11780 W 19950921

OTHER SOURCE(S): MARPAT 125:52527

ED Entered STN: 03 Jul 1996

AB 32P- and 33P-labeled proteins which are useful for radiotherapy are prepared by stably linking 32P- or 33P-containing mols. to targeting proteins in such a way that the targeting protein retains the ability to bind to a cellular target. Methods for preparing the labeled proteins and their use in methods of radiotherapy are described. 1-(N-maleimidomethyl)cyclohexane-4-(2-aminoethylacetamide) was prepared and further reacted with 32P-AMP; the product was coupled with an anti-CEA monoclonal antibody. Measurement of immunoreactivity, biodistribution, and tissue specificity of the labeled monoclonal antibody is described.

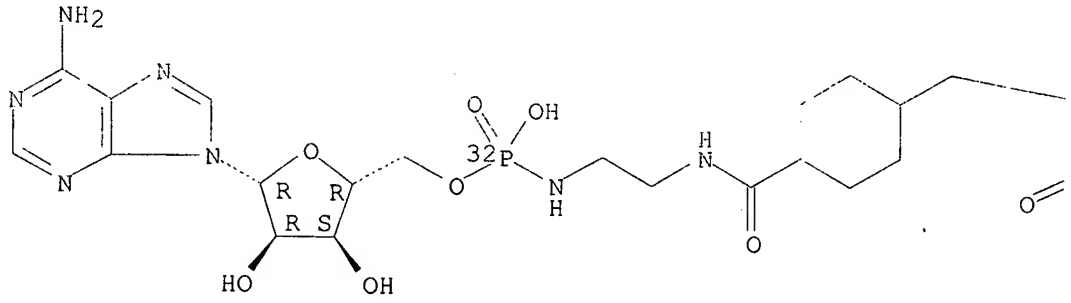
IT **178063-46-2DP**, anti-CEA monoclonal antibody conjugate
RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(radioactive phosphorous labeling of proteins for targeted radiotherapy)

RN 178063-46-2 CAPLUS

CN Adenosine, 5'-[hydrogen [2-[[[4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]carbonyl]amino]ethyl]phosphoramidate-32P] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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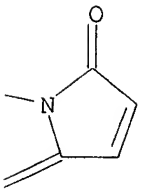


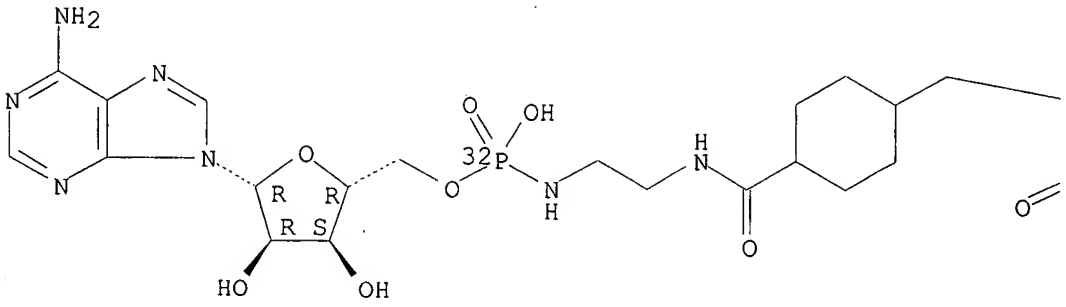
IT **178063-46-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(radioactive phosphorous labeling of proteins for targeted radiotherapy)

RN 178063-46-2 CAPLUS

CN Adenosine, 5'-[hydrogen [2-[[[4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]carbonyl]amino]ethyl]phosphoramidate-32P] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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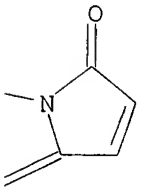


L35 ANSWER 15 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:501099 CAPLUS
DOCUMENT NUMBER: 127:205774
TITLE: Oligo(2'-O-methyl-ribonucleotides) and their derivatives. II. Synthesis and properties of oligo(2'-O-methyl-ribonucleotides) modified with N-(2-hydroxyethyl)phenazinium and steroid groups at the 5'-terminus
AUTHOR(S): Sergeeva, Z. A.; Lokhov, S. G.; Ven'yaminova, A. G.
CORPORATE SOURCE: Siberian Div., Novosibirsk Inst. Bioorganic Chem., Novosibirsk, 630090, Russia
SOURCE: Bioorganicheskaya Khimiya (1996), 22(12), 916-922
CODEN: BIKHD7; ISSN: 0132-3423
PUBLISHER: MAIK Nauka
DOCUMENT TYPE: Journal
LANGUAGE: Russian
ED Entered STN: 08 Aug 1997
AB Oligo(2'-O-methyl-ribonucleotides) modified at the 5'-terminus with a steroid (cholesterol or testosterone) or polycyclic aromatic dye [N-(2-hydroxyethyl)phenazinium] residue were synthesized. It was shown that the introduction of an N-(2-hydroxyethyl)phenazinium moiety into octa(2'-O-methyl-ribonucleotide) increased the melting temperature of the duplex with the d-target by 9°. The steroid residue, which was attached to the 5'-position of deoxy(2'-O-methyl)nucleotide via a phosphodiester linkage, enhanced the stability of the steroid conjugate complexes with d(pA)16 and (pA)16; this effect was stronger with the cholesterol derivative (ΔTm 5 and 8°, resp.) than with the testosterone derivative (ΔTm 1 and 4°).
IT **194534-47-9P 194534-48-0P**
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); [illegible]

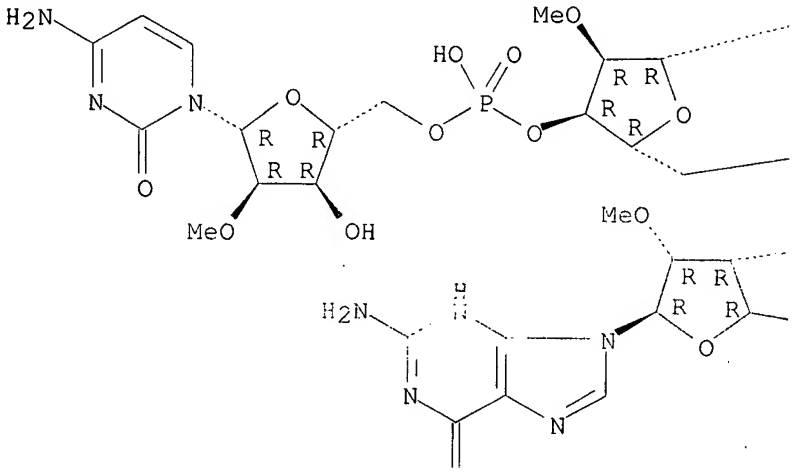
(Preparation); RACT (Reactant or reagent)
(oligo(2'-O-methyl-ribonucleotides) modified with N-(2-hydroxyethyl)phenazinium and steroid groups at the 5'-terminus)

RN 194534-47-9 CAPLUS

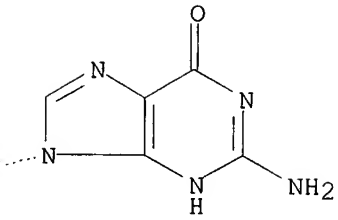
CN Cytidine, 5'-O-[hydroxy[[2-[[10-(2-hydroxyethyl)phenazinium-2-yl]amino]ethyl]amino]phosphinyl]-2'-O-methyluridylyl-(3'→5')-2'-O-methyluridylyl-(3'→5')-2'-O-methylcytidylyl-(3'→5')-2'-O-methyladenylyl-(3'→5')-2'-O-methyladenylyl-(3'→5')-2'-O-methylcytidylyl-(3'→5')-2'-O-methylcytidylyl-(3'→5')-2'-O-methyl-, inner salt (9CI) (CA INDEX NAME)

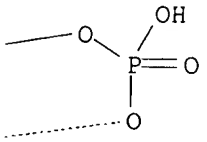
Absolute stereochemistry.

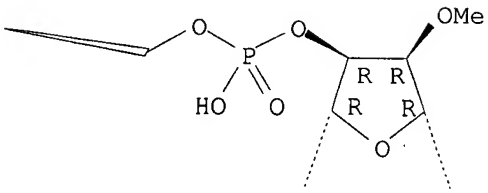
PAGE 1-A



PAGE 1-B

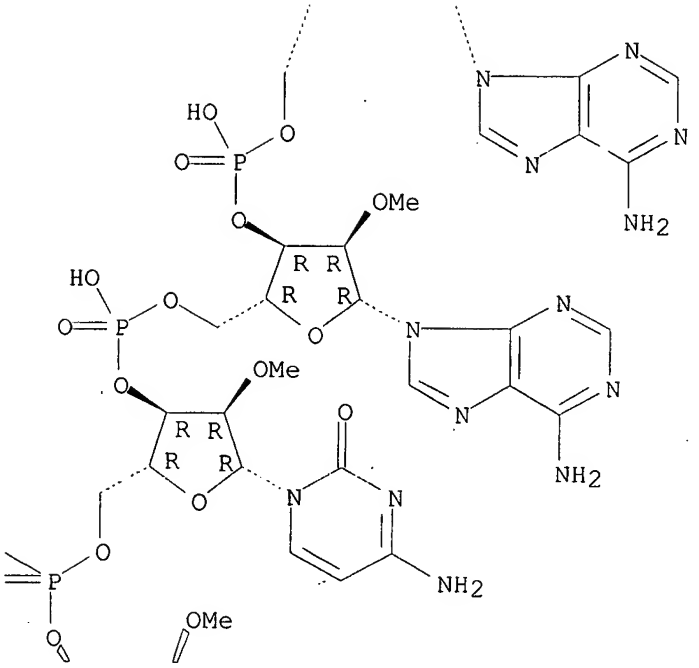




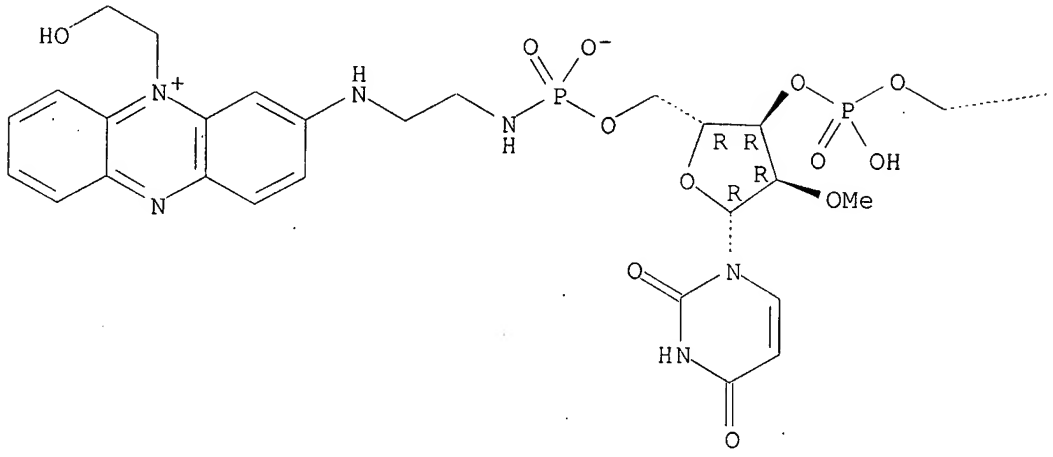


PAGE 2-A

PAGE 2-B



PAGE 3-A



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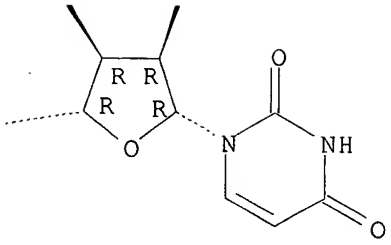
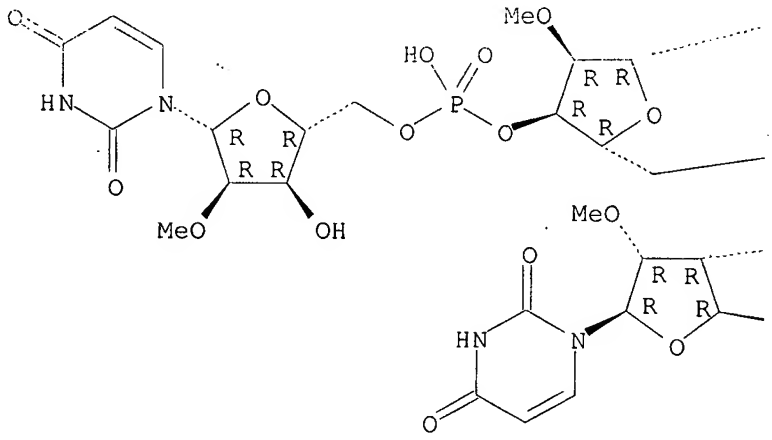


RN 194534-48-0 CAPLUS
CN Uridine, 5'-O-[hydroxy[[2-[[10-(2-hydroxyethyl)phenazinium-2-yl]amino]ethyl]amino]phosphinyl]-2'-O-methylguanylyl-(3'→5')-2'-O-methyluridylyl-(3'→5')-2'-O-methylguanylyl-(3'→5')-2'-O-methyluridylyl-(3'→5')-2'-O-methylguanylyl-(3'→5')-2'-O-methyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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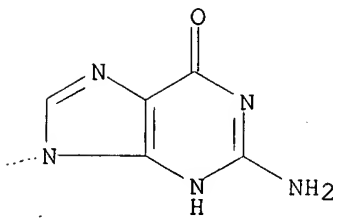

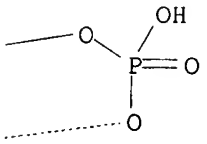

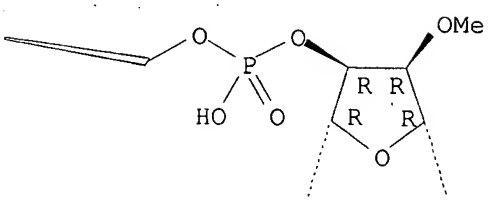

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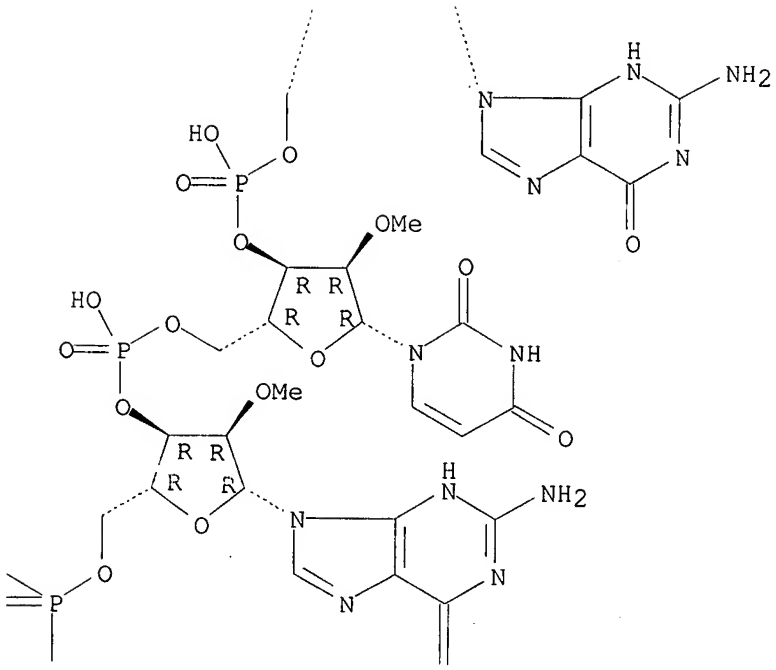
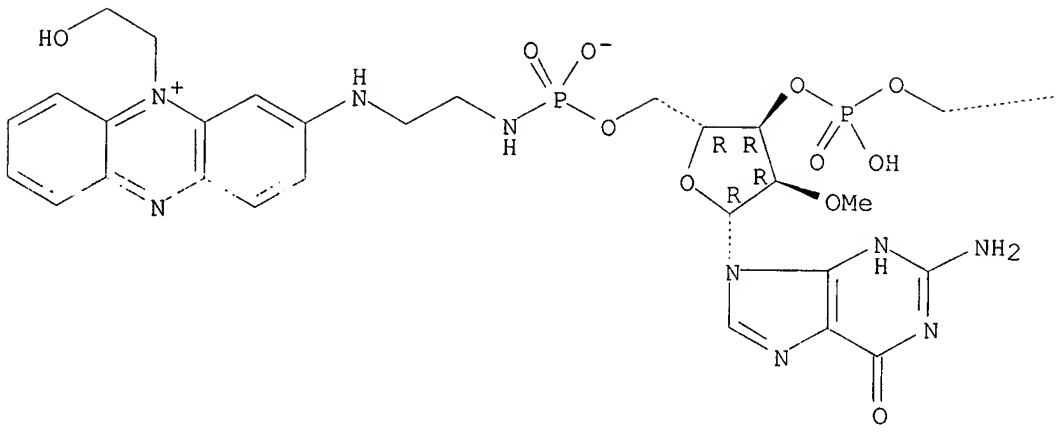
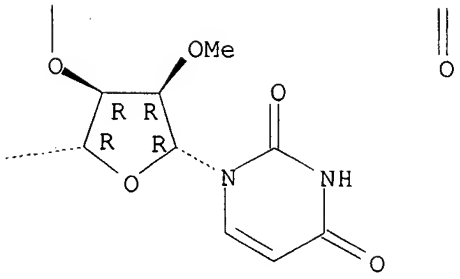
PAGE 2-B



PAGE 3-A



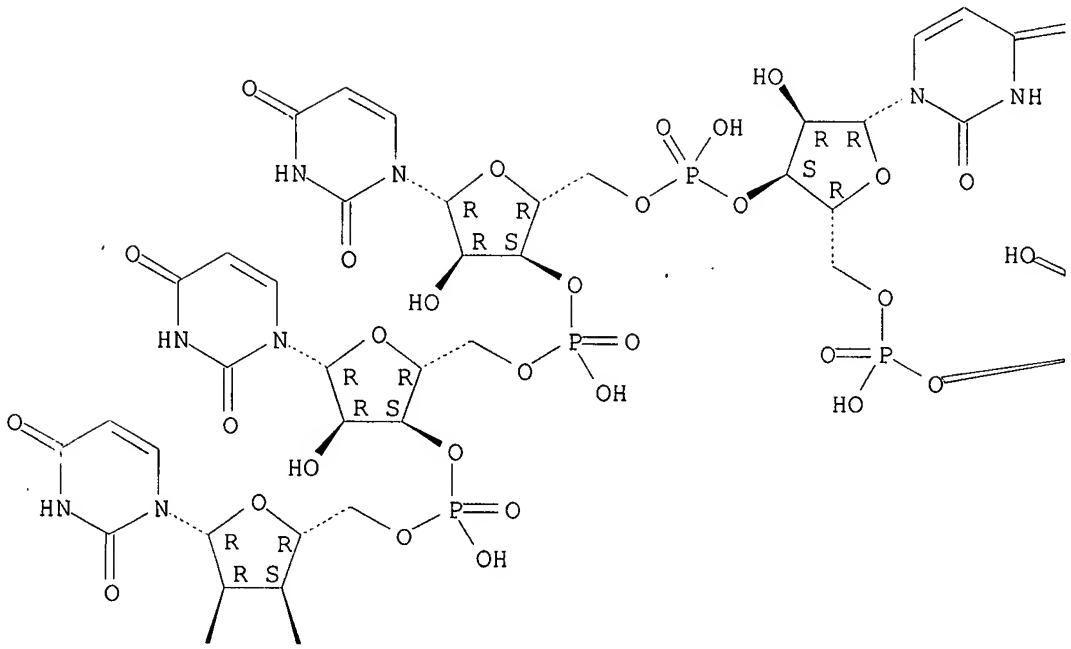
PAGE 3-B



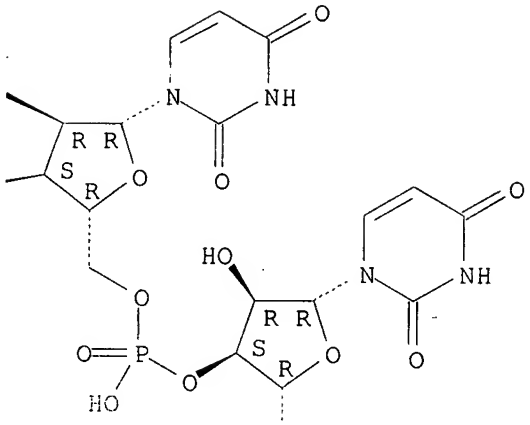
L35 ANSWER 16 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:574552 CAPLUS
DOCUMENT NUMBER: 125:329214
TITLE: Photoactive perfluoroarylazido derivatives of oligoribonucleotides: synthesis and properties
AUTHOR(S): Repkova, M. N.; Ivanova, T. M.; Filippov, R. V.; Ven'yaminova, A. G.
CORPORATE SOURCE: Novosibirsk Inst. Bioorg. Chem., Novosibirsk, 630090, Russia
SOURCE: Bioorganicheskaya Khimiya (1996), 22(6), 432-440
CODEN: BIKHD7; ISSN: 0132-3423
PUBLISHER: MAIK Nauka
DOCUMENT TYPE: Journal
LANGUAGE: Russian
ED Entered STN: 27 Sep 1996
AB The synthesis of novel photoreactive oligoribonucleotide derivs. containing a p-azidotetrafluorobenzoyl group attached through a diamino spacer to the 5'-terminal phosphate or adenosine C-8 atom is described. The thermal stability of the duplexes formed by the modified (RLNH)pr(CpCpApApApCpA) oligoribonucleotide and its deoxyribo analog (R = p-azidotetrafluorobenzoyl, L = -NH(CH2)2-) with the complementary ribo- and deoxyribooctanucleotides (r and d) was studied. It is found that the stability of the *r-r duplex is much higher than that of the *d-r duplex (Tm 35 and 20°), whereas with the deoxyribo target the modified oligoribonucleotide and its d-analog form duplexes of approx. equal stability (Tm 30 and 32°, resp.).
IT **165190-30-7P 183320-65-2P 183320-73-2P 183320-82-3P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(photoactive perfluoroarylazido derivs. of oligoribonucleotides)
RN 165190-30-7 CAPLUS
CN Uridine, 5'-O-[[[2-[(4-azido-2,3,5,6-tetrafluorobenzoyl)amino]ethyl]amino]hydroxyphosphinyl]uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

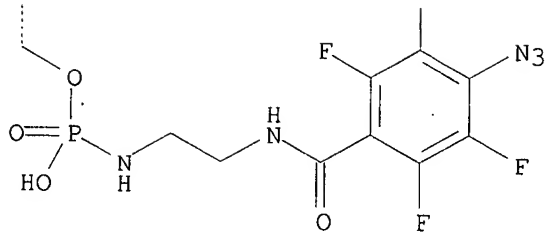


PAGE 1-B



PAGE 2-A

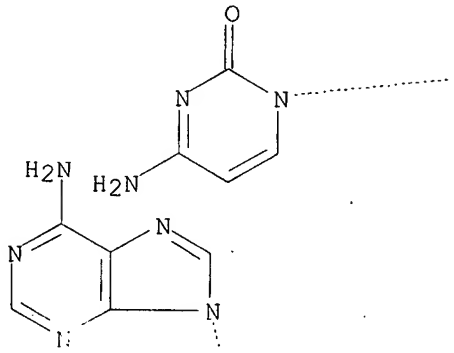
PAGE 2-B



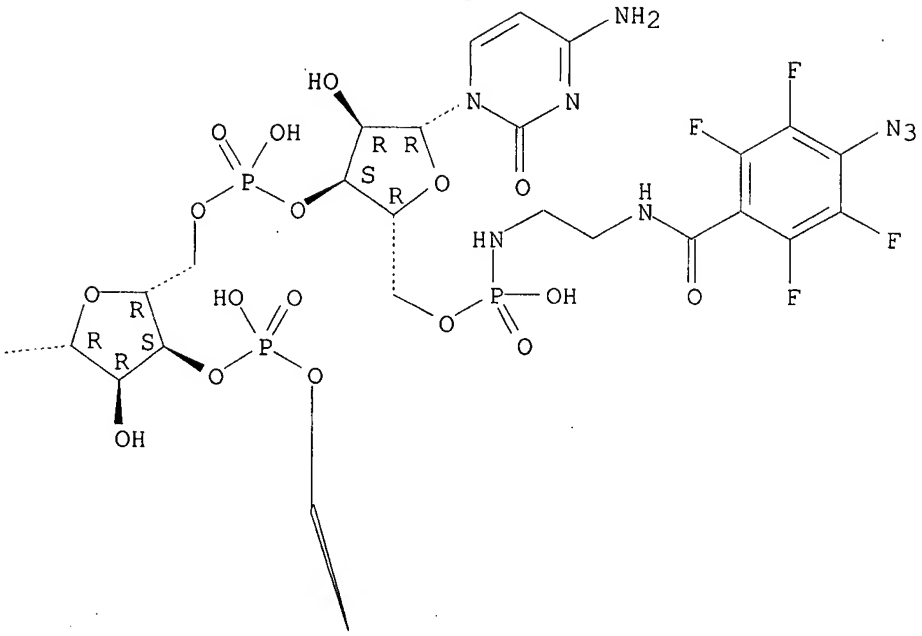
RN 183320-65-2 CAPLUS
CN Adenosine, 5'-O-[[[2-[(4-azido-2,3,5,6-tetrafluorobenzoyl)amino]ethyl]amino]hydroxyphosphinyl]cytidylyl-(3'→5')-cytidylyl-(3'→5')-adenylyl-(3'→5')-adenylyl-(3'→5')-adenylyl-(3'→5')-cytidylyl-(3'→5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

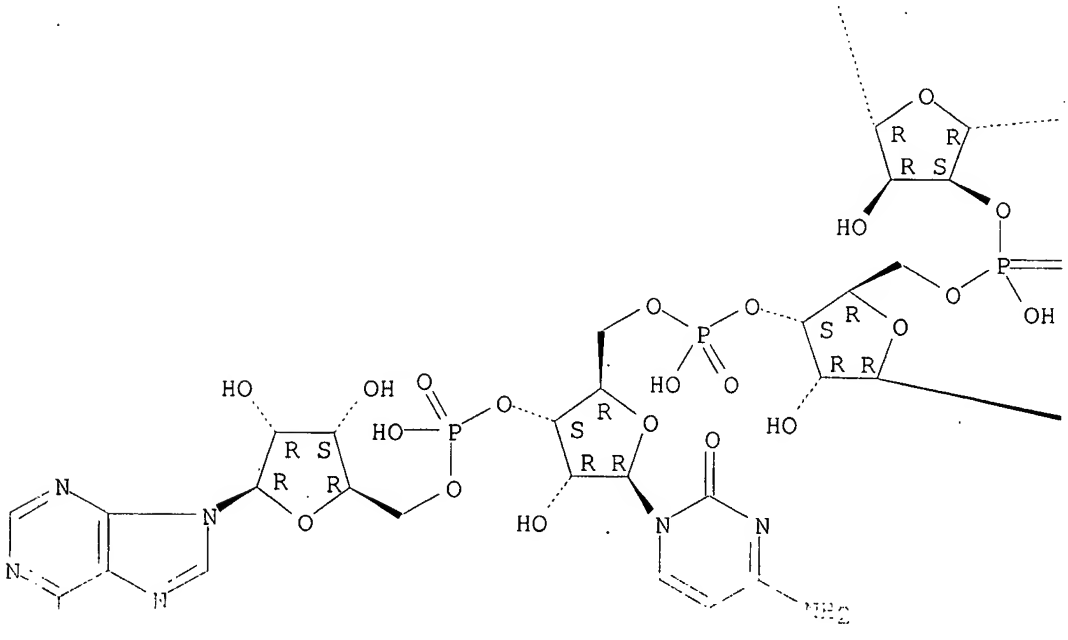
PAGE 1-A



PAGE 1-B



PAGE 2-A



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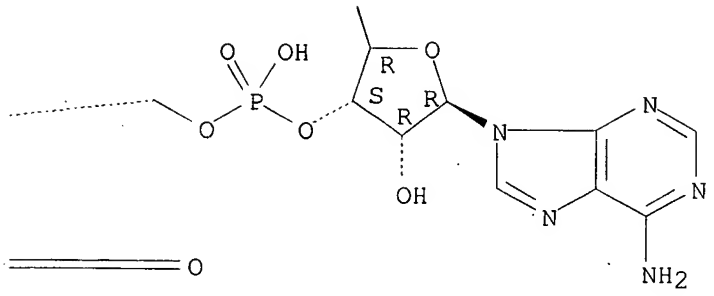
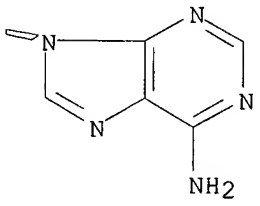




PAGE 3-A

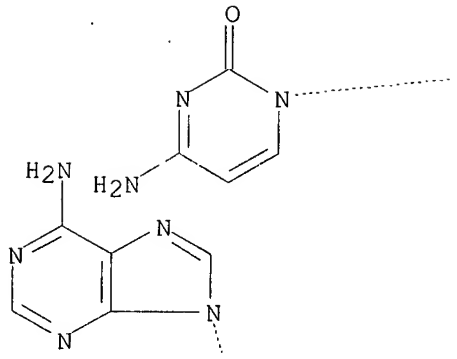
RN 183320-73-2 CAPLUS
CN Adenosine, 5'-O-[[[2-[(4-azido-2,3,5,6-tetrafluorobenzoyl)amino]ethyl]amino]hydroxyphosphinyl]cytidylyl-(3'→5')-cytidylyl-(3'→5')-adenylyl-(3'→5')-adenylyl-(3'→5')-adenylyl-(3'→5')-cytidylyl-(3'→5')-, complex with uridylyl-(3'→5')-guanylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-guanylyl-(3'→5')-guanylyl-(3'→5')-cytidine (1:1) (9CI) (CA INDEX NAME)

CM 1

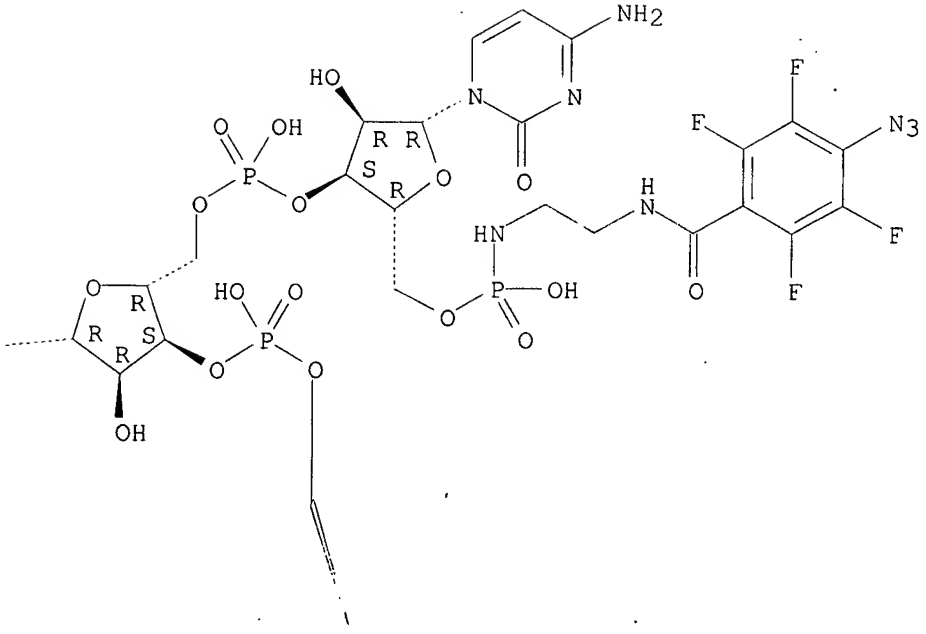
CRN 183320-65-2
CMF C76 H91 F4 N34 O46 P7

Absolute stereochemistry.

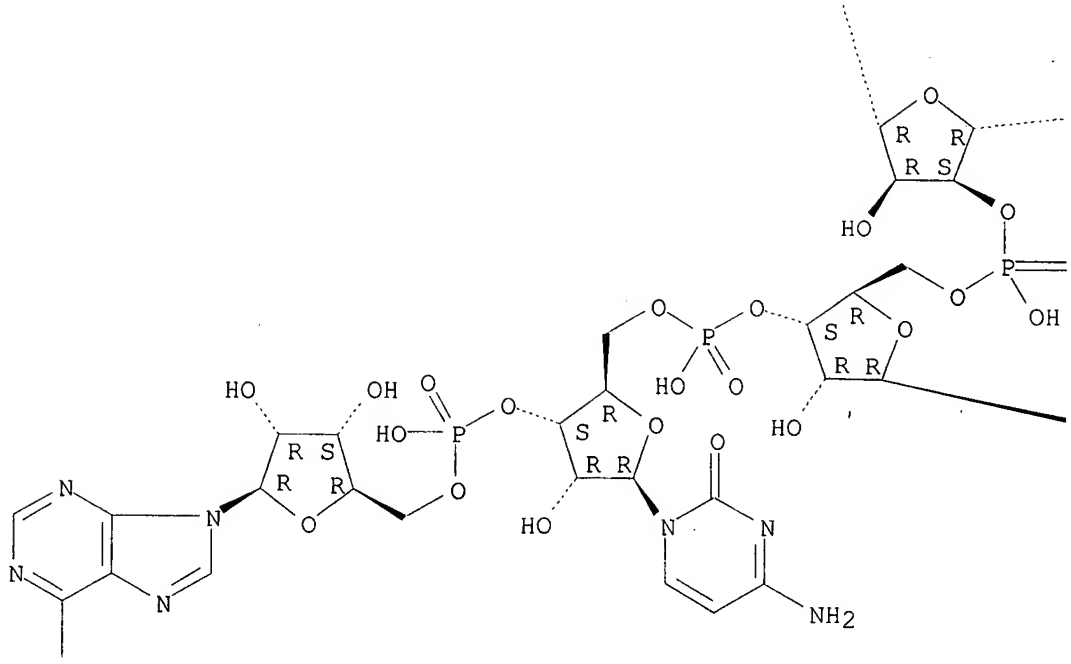
PAGE 1-A



PAGE 1-B



PAGE 2-A



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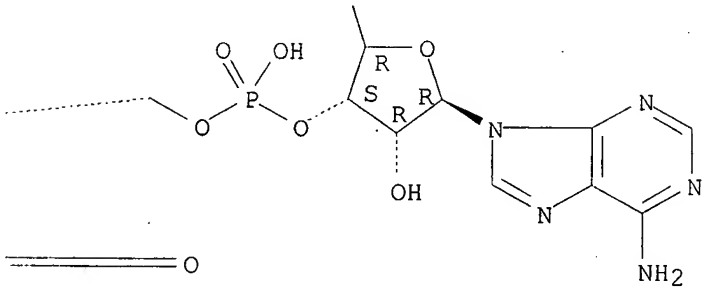
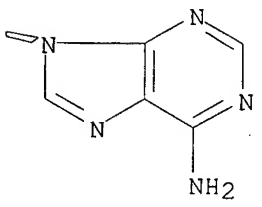




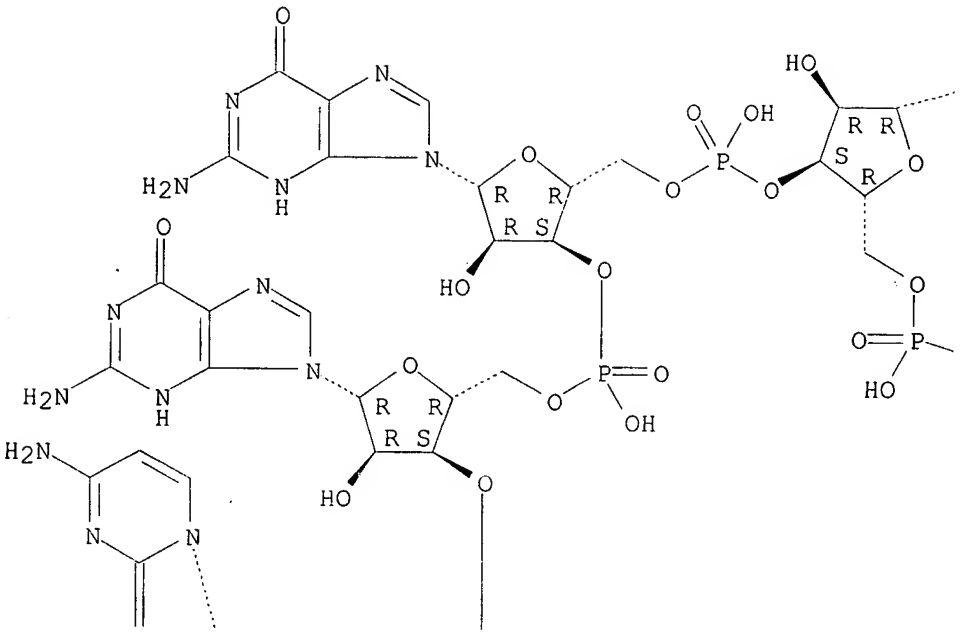
PAGE 3-A

CM 2

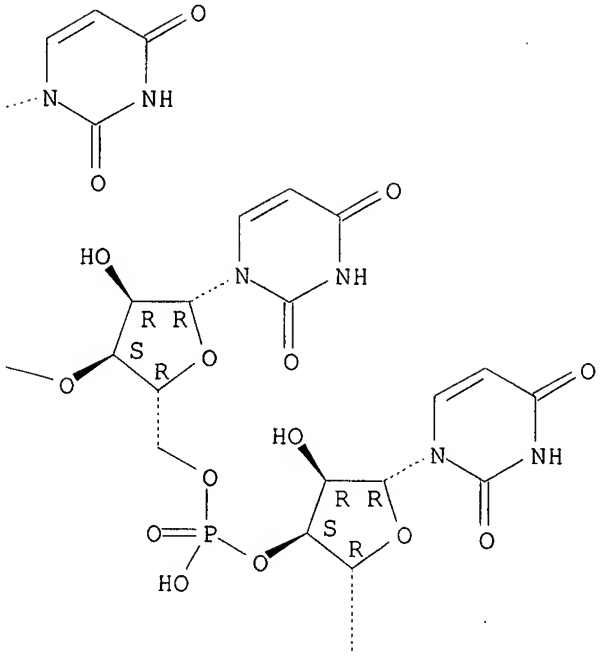
CRN 149438-10-8
CMF C75 H93 N26 O58 P7

Absolute stereochemistry.

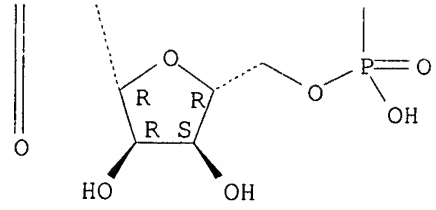
PAGE 1-A



PAGE 1-B



PAGE 2-A



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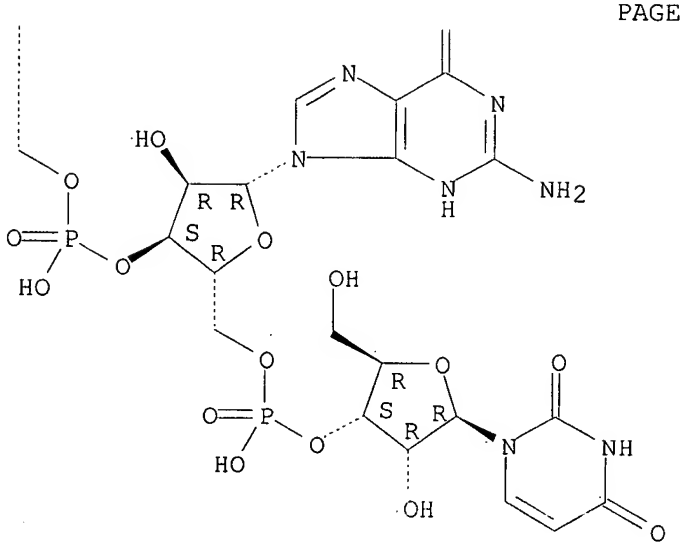


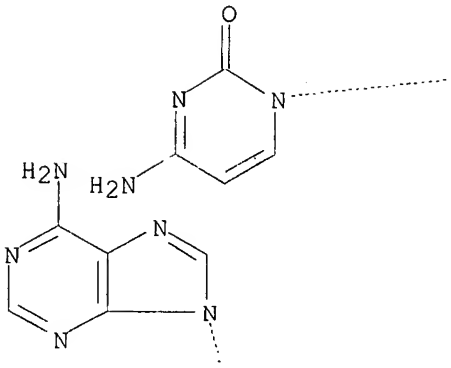
RN 183320-82-3 CAPLUS
CN Adenosine, 5'-O-[[[2-[(4-azido-2,3,5,6-tetrafluorobenzoyl)amino]ethyl]amino]hydroxyphosphinyl]cytidylyl-(3'→5')-cytidylyl-(3'→5')-adenylyl-(3'→5')-adenylyl-(3'→5')-adenylyl-(3'→5')-cytidylyl-(3'→5')-, complex with 5'-O-phosphonothymidylyl-(3'→5')-2'-deoxyguanylyl-(3'→5')-thymidylyl-(3'→5')-thymidylyl-(3'→5')-thymidylyl-(3'→5')-2'-deoxyguanylyl-(3'→5')-2'-deoxyguanylyl-(3'→5')-2'-deoxycytidine (1:1) (9CI) (CA INDEX NAME)

CM 1

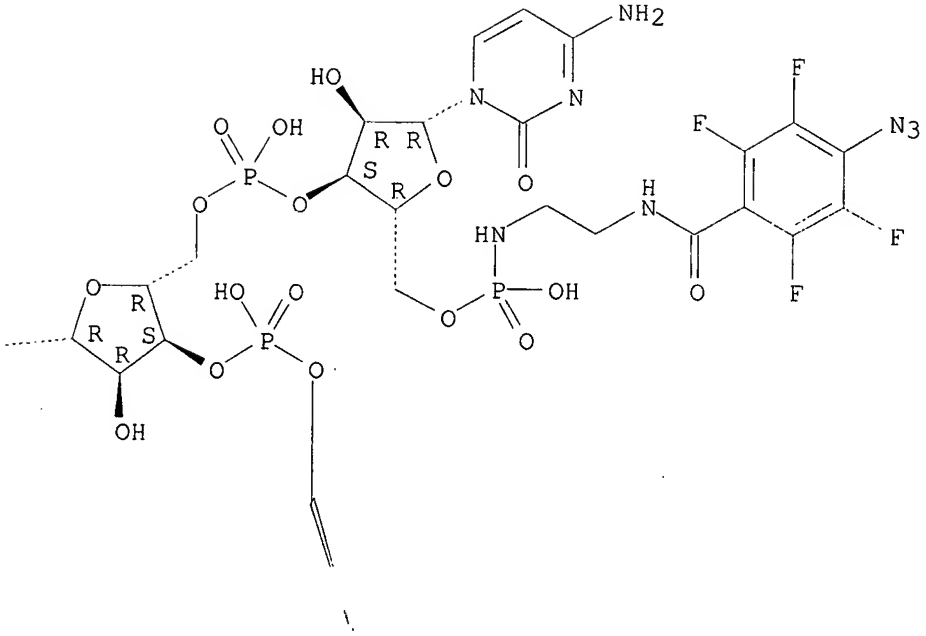
CRN 183320-65-2
CMF C76 H91 F4 N34 O46 P7

Absolute stereochemistry.

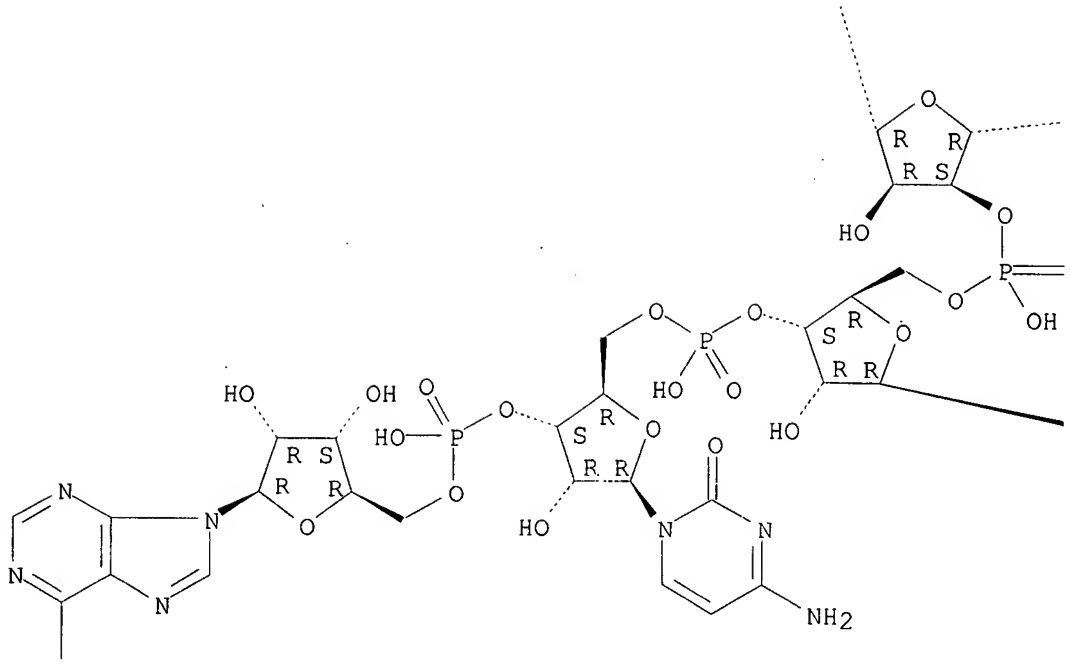
PAGE 1-A



PAGE 1-B



PAGE 2-A



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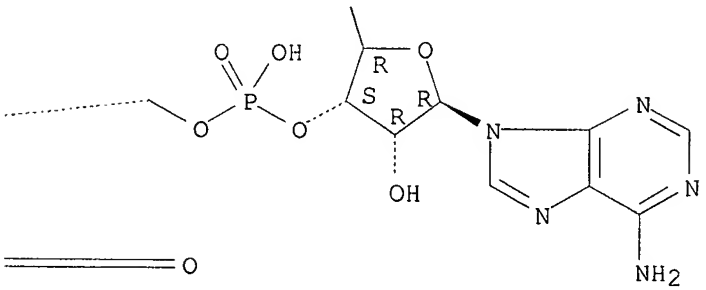
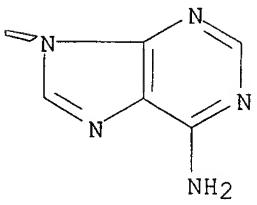




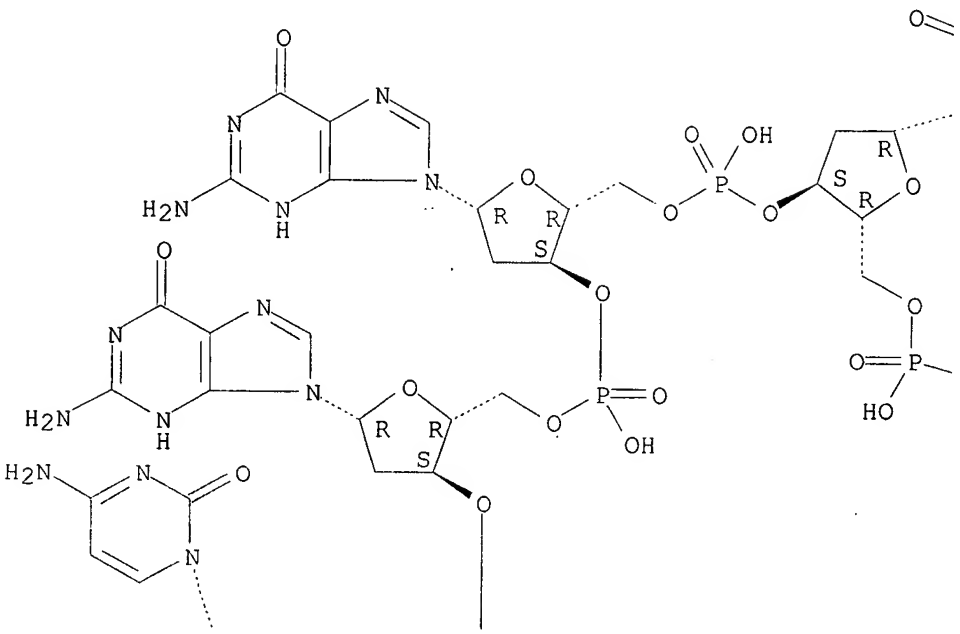
PAGE 3-A

CM 2

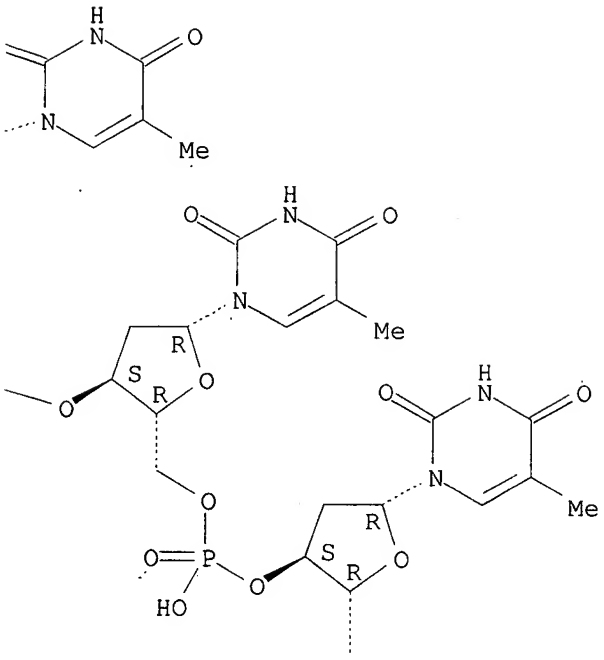
CRN 106665-63-8
CMF C79 H102 N26 O53 P8

Absolute stereochemistry.

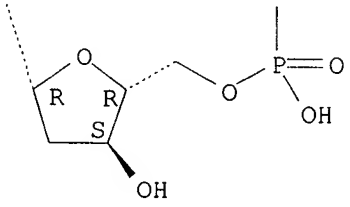
PAGE 1-A



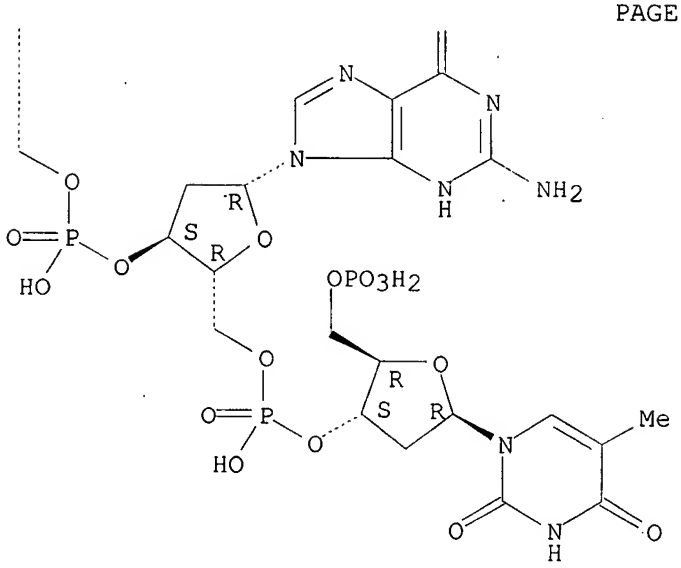
PAGE 1-B



PAGE 2-A



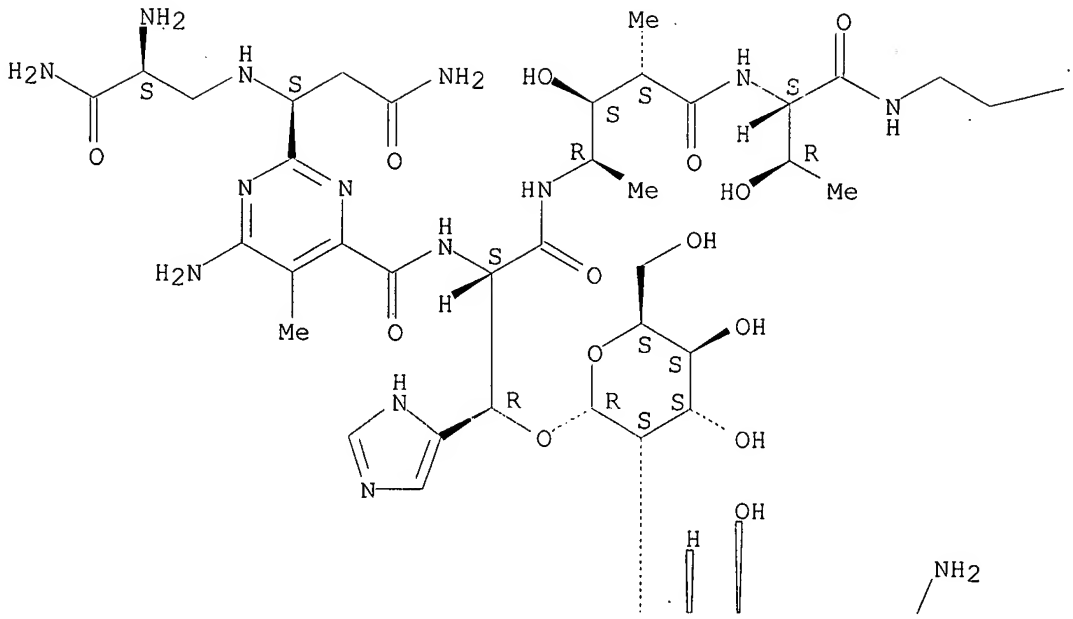
PAGE 2-B



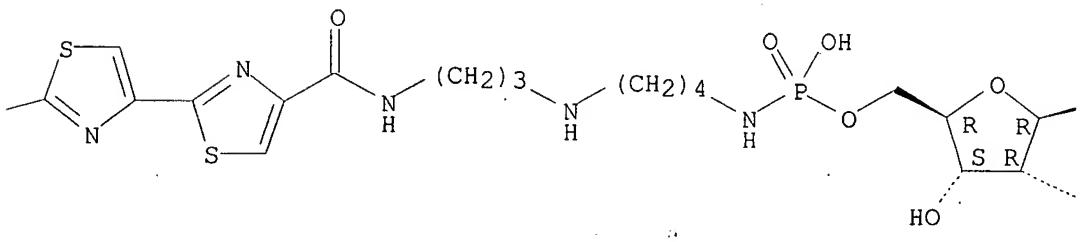
L35 ANSWER 17 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:260416 CAPLUS
DOCUMENT NUMBER: 124:342927
TITLE: Structure elucidation of an oligonucleotide derivative of bleomycin A5 by 13C NMR
AUTHOR(S): Sergeev, D. S.; Denisov, A. Yu.; Zarytova, V. F.
CORPORATE SOURCE: Inst. Bioorganic Chem., Russian Academy Sci., Novosibirsk, 630090, Russia
SOURCE: Bioorganicheskaya Khimiya (1996), 22(1), 54-7
CODEN: BIKHD7; ISSN: 0132-3423
PUBLISHER: MAIK Nauka
DOCUMENT TYPE: Journal
LANGUAGE: Russian
ED Entered STN: 03 May 1996
AB The localization of the covalent bond in the conjugates of bleomycin A5 and oligonucleotides was established by 13C NMR using the bleomycin derivative of uridine-5'-phosphate synthesized as a model compound The phosphate group of the nucleotide was shown to form a phosphamide bond with the primary amino group of the spermidine moiety of bleomycin A5. The formation of the P-N bond causes the downfield shift of the signals of the neighboring carbon atoms of the spermidine fragment by 1.8 and 4.2 ppm and the splitting of the signal of th C-2 atom of the spermidine fragment with J 6.8 Hz due to vicinal spin-spin coupling with the phosphorus atom.
IT **176916-33-9 176916-34-0**
RL: PRP (Properties)
(structure elucidation of an oligonucleotide derivative of bleomycin A5 by 13C NMR)
RN 176916-33-9 CAPLUS
CN Bleomycinamide, N1-[3-[[4-(phosphonoamino)butyl]amino]propyl]-, 5'-ester with uridine (9CI) (CA INDEX NAME)

Absolute stereochemistry.

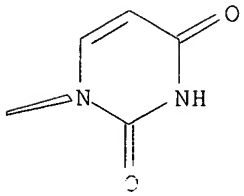
PAGE 1-A



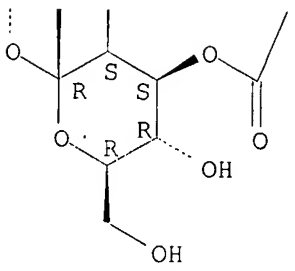
PAGE 1-B



PAGE 1-C

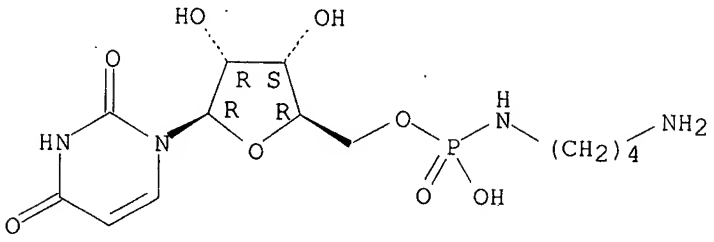


PAGE 2-A



RN 176916-34-0 CAPLUS
CN Uridine, 5'-[hydrogen (4-aminobutyl)phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L35 ANSWER 18 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:683152 CAPLUS
DOCUMENT NUMBER: 123:340698
TITLE: Use of Phosphoimidazolide-Activated Guanosine to Investigate the Nucleophilicity of Spermine and Spermidine
AUTHOR(S): Kanavarioti, Anastassia; Baird, Eldon E.; Smith, Pearish J.
CORPORATE SOURCE: Department of Chemistry and Biochemistry, University of California, Santa Cruz, CA, 95064, USA
SOURCE: Journal of Organic Chemistry (1995), 60(15), 4873-83
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 19 Jul 1995
AB Guanosine 5'-phosphate 2-methylimidazolide (2-MeImpG), a labile phosphoimidazolide analog of guanosine triphosphate, was used to test the reactivity of the natural polyamines (PAs), spermine (spm) and spermidine (spd). The products are the guanosine 5'-phosphate-polyamine derivs. (PA-pG: spd-pG and spm-pG) which are quite stable in the range 4 < pH < 11. Our study is the first of which we are aware that reports on the nucleophilicity of these amines. HPLC and [illegible] of the products indicate the formation of only two [illegible] and only one of the two possible spm products. These results can be explained if only the primary amino groups of the two polyamines are reactive, while the secondary amino groups are rendered unreactive by a steric effect.
IT **170374-74-0P 170374-75-1P 170374-76-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)

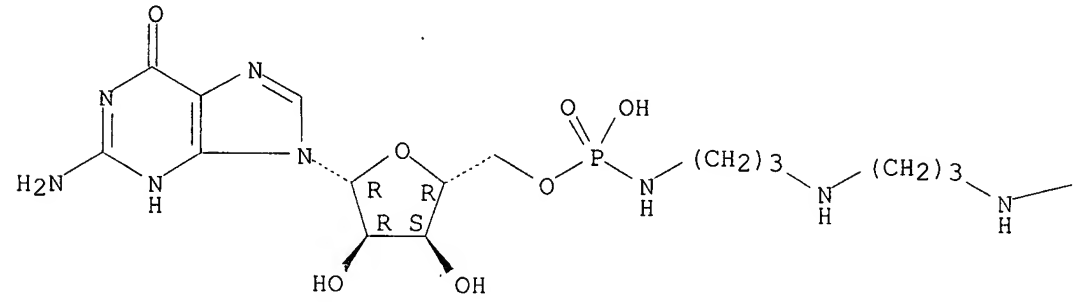
(nucleophilicity of spermine and spermidine using phosphoimidazolide-activated guanosine)

RN 170374-74-0 CAPLUS

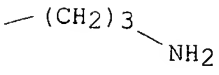
CN Guanosine, 5'-[hydrogen [3-[[3-[(3-aminopropyl)amino]propyl]amino]propyl]phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



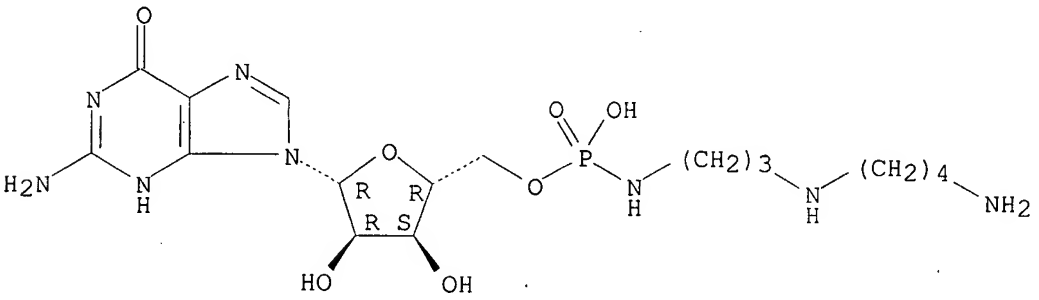
PAGE 1-B



RN 170374-75-1 CAPLUS

CN Guanosine, 5'-[hydrogen [3-[(4-aminobutyl)amino]propyl]phosphoramidate] (9CI) (CA INDEX NAME)

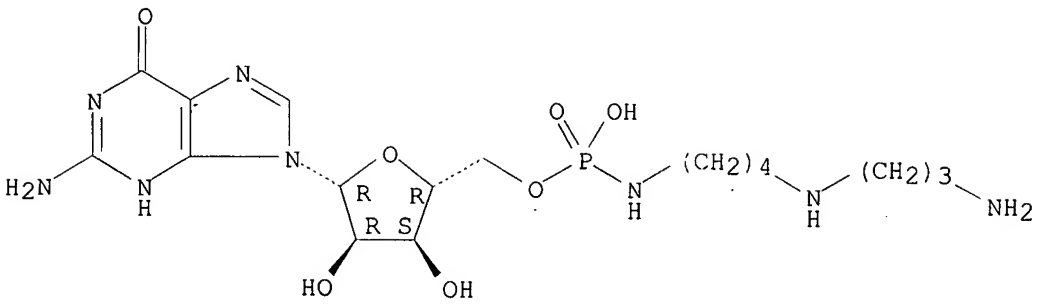
Absolute stereochemistry.



RN 170374-76-2 CAPLUS

CN Guanosine, 5'-[hydrogen [4-[(3-aminopropyl)amino]butyl]phosphoramidate] (9CI) (CA INDEX NAME)

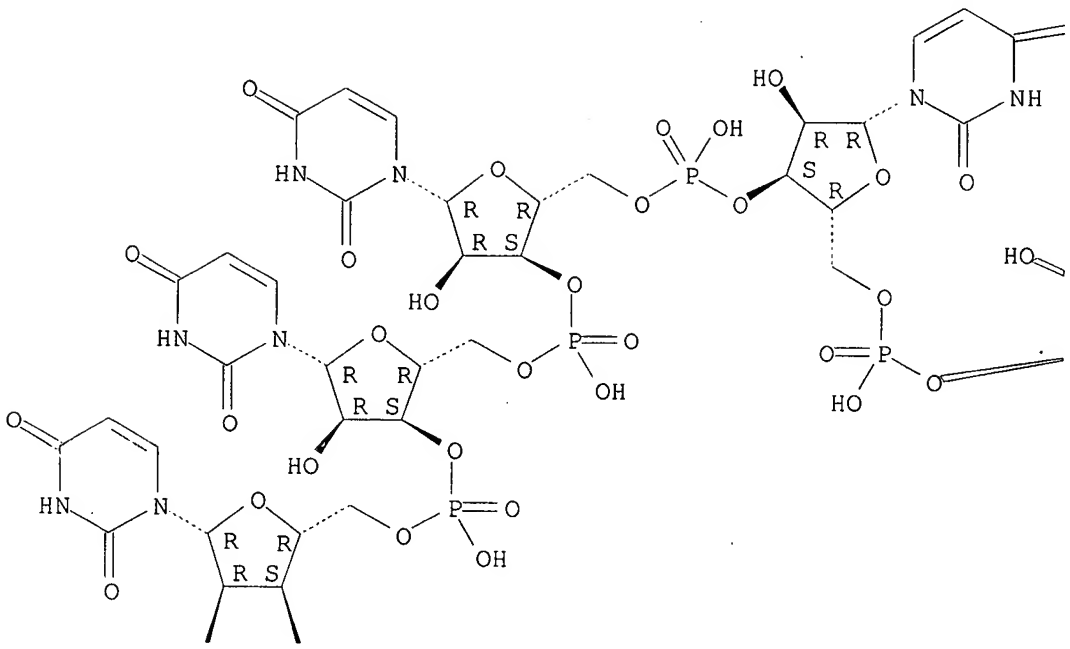
Absolute stereochemistry.



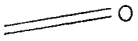
L35 ANSWER 19 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:631147 CAPLUS
DOCUMENT NUMBER: 123:78928
TITLE: New photoreactive mRNA analogs for the affinity labeling of ribosomes
AUTHOR(S): Venyaminova, A. G.; Repkova, M. N.; Ivanova, T. M.; Dobrikov, M. I.; Bulygin, K. N.; Graifer, D. M.; Karpova, G. G.; Zarytova, V. F.
CORPORATE SOURCE: Novosibirsk Inst. of Bioorganic Chemistry, Siberian Division of Russian Academy of Sciences, Novosibirsk, 630090, Russia
SOURCE: Nucleosides & Nucleotides (1995), 14(3-5), 1069-72
CODEN: NUNUD5; ISSN: 0732-8311
PUBLISHER: Dekker
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 22 Jun 1995
AB Chemical synthesis of the model mRNA analogs [AUGU3, (pU)n] bearing p-azidotetrafluorobenzamido, p-azidobenzamido or 2-nitro-5-azidobenzamido groups coupled to the 5'-terminal phosphate or to the C-8-position of adenosine is described. The first results of the photoaffinity labeling study of human placenta ribosomes are presented.
IT **165190-30-7P 165190-31-8P 165190-32-9P**
165190-33-0P
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(photoreactive mRNA analogs for affinity labeling of ribosomes)
RN 165190-30-7 CAPLUS
CN Uridine, 5'-O-[[[2-[(4-azido-2,3,5,6-tetrafluorobenzoyl)amino]ethyl]amino]hydroxyphosphinyl]uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')- (9CI) (CA INDEX NAME)

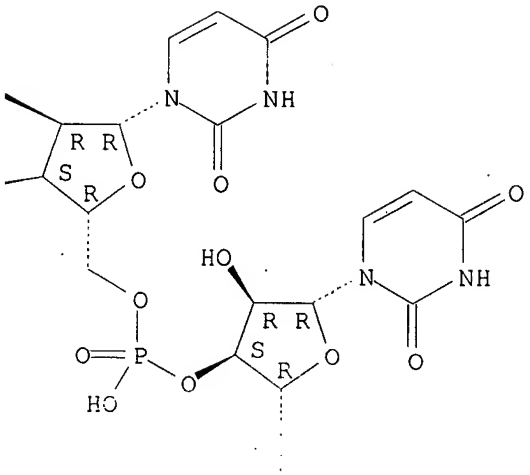
Absolute stereochemistry.

PAGE 1-A



PAGE 1-B





reprint of search completed 9-26-06

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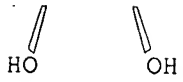

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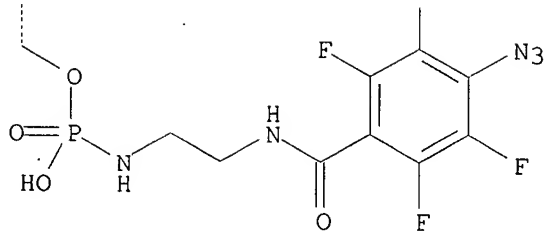
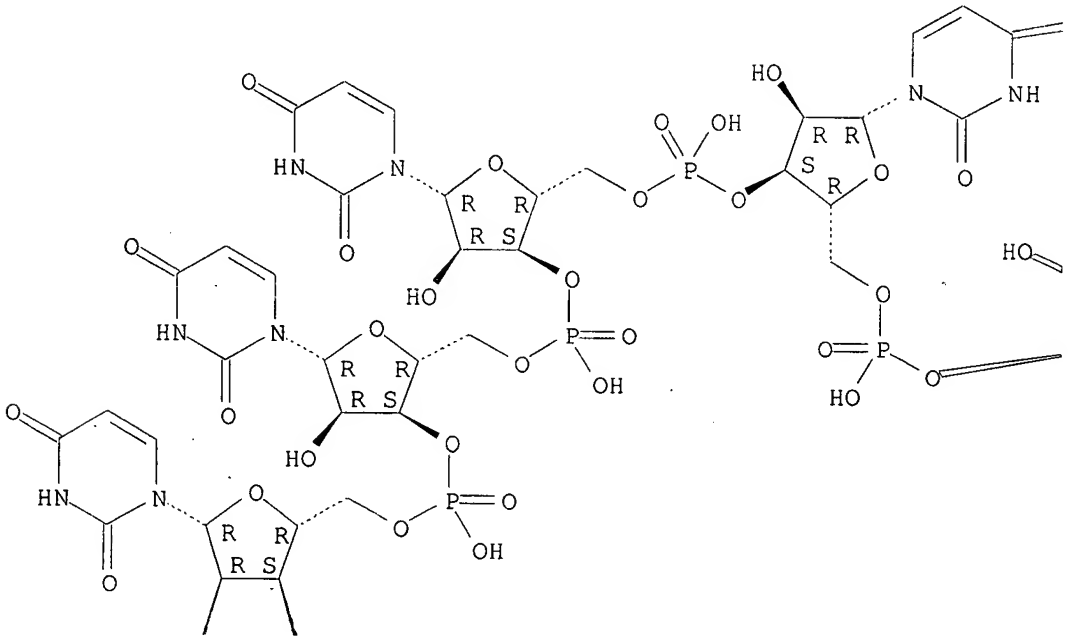


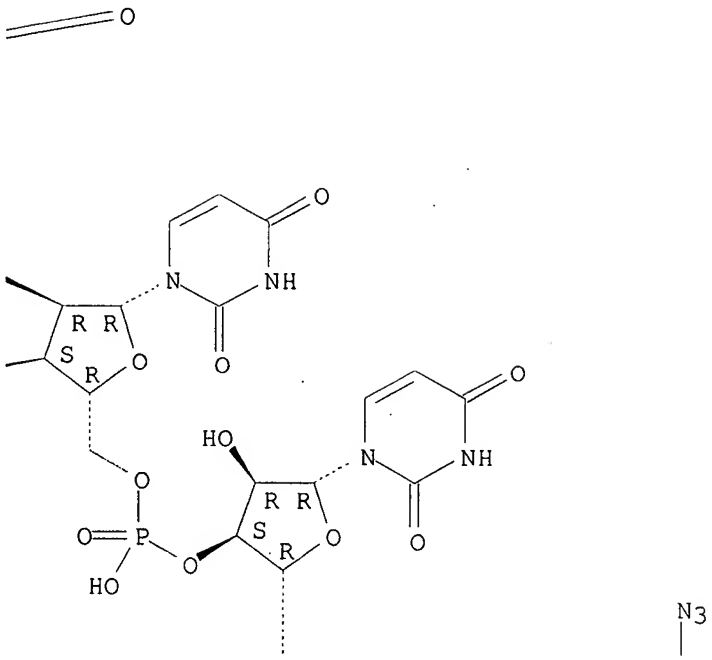
RN 165190-31-8 CAPLUS
CN Uridine, 5'-O-[[[2-[(5-azido-2-nitrobenzoyl)amino]ethyl]amino]hydroxyphosphinyl]uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



PAGE 2-A

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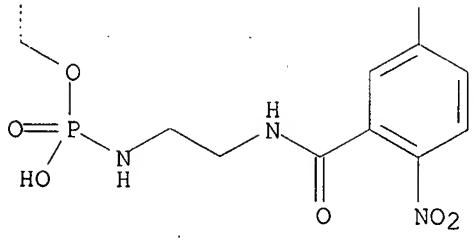
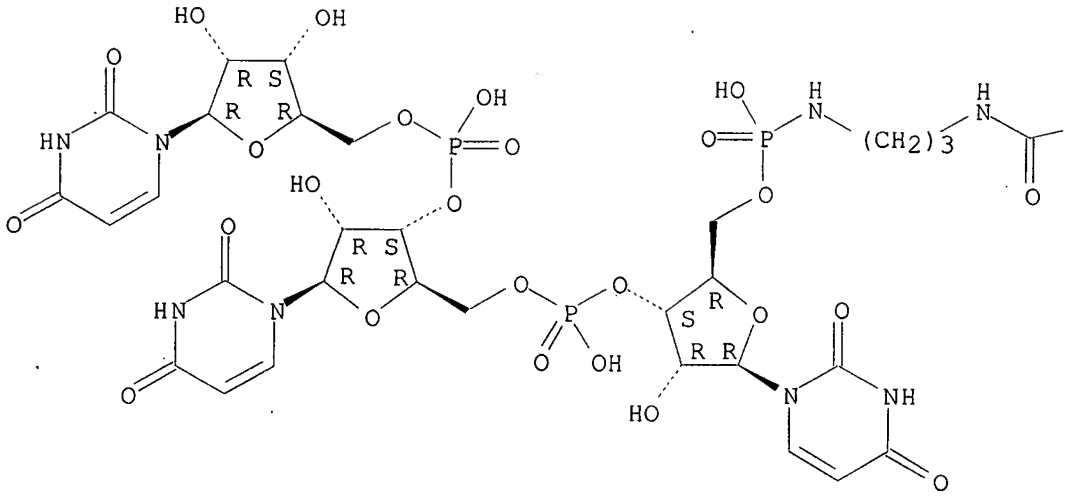


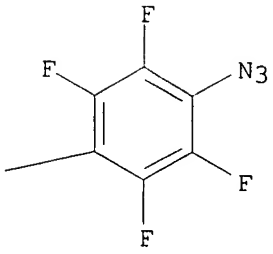
RN 165190-32-9 CAPLUS
CN Uridine, 5'-O-[[[3-[(4-azido-2,3,5,6-tetrafluorobenzoyl)amino]propyl]amino]hydroxyphosphinyl]uridylyl-(3'→5')-uridylyl-(3'→5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



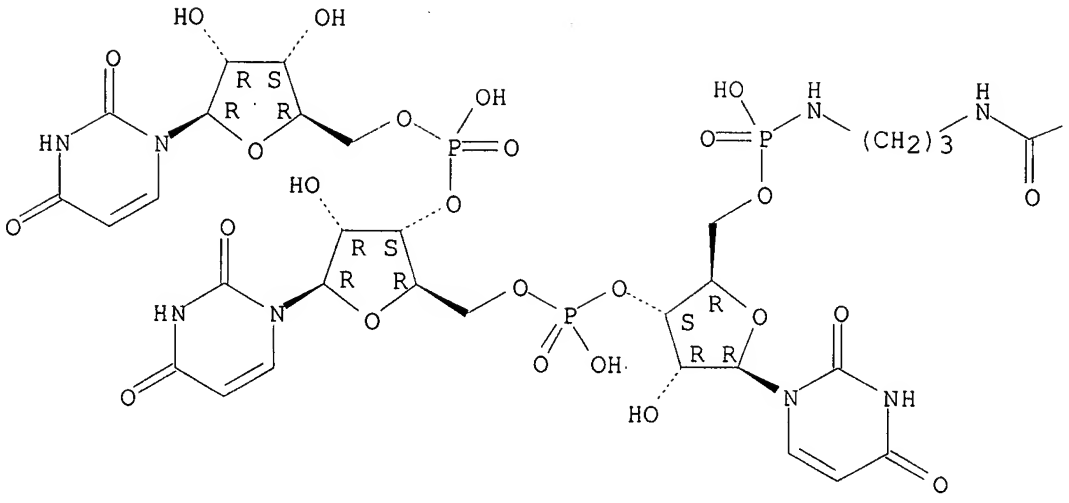
PAGE 1-B



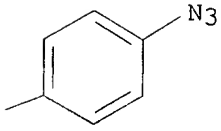
RN 165190-33-0 CAPLUS
CN Uridine, 5'-O-[[[3-[(4-azidobenzoyl)amino]propyl]amino]hydroxyphosphinyl]uridylyl-(3'→5')-uridylyl-(3'→5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



IT **165190-28-3P 165190-29-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(photoreactive mRNA analogs for affinity labeling of ribosomes)
RN 165190-28-3 CAPLUS
CN Uridine, 5'-O-[[(2-aminoethyl)amino]hydroxyphosphinyl]uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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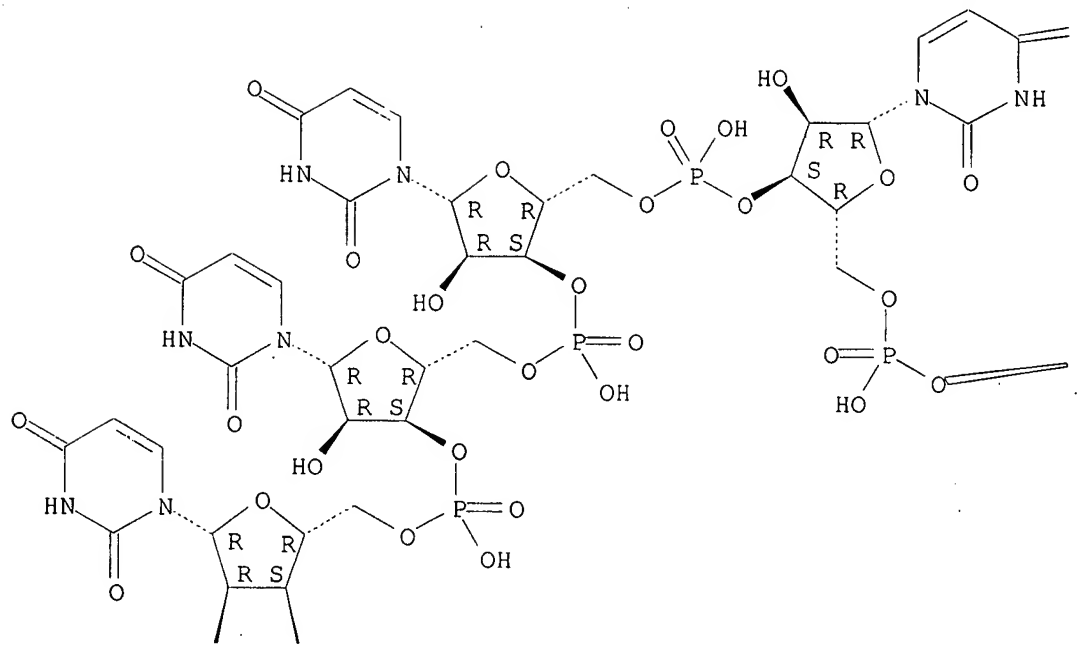

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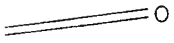

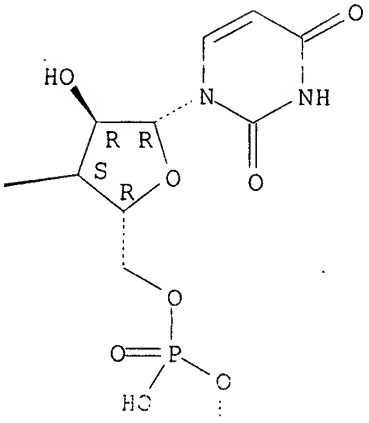

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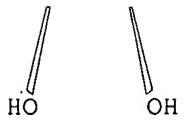

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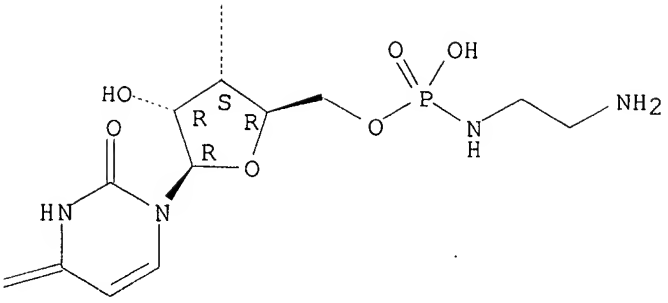
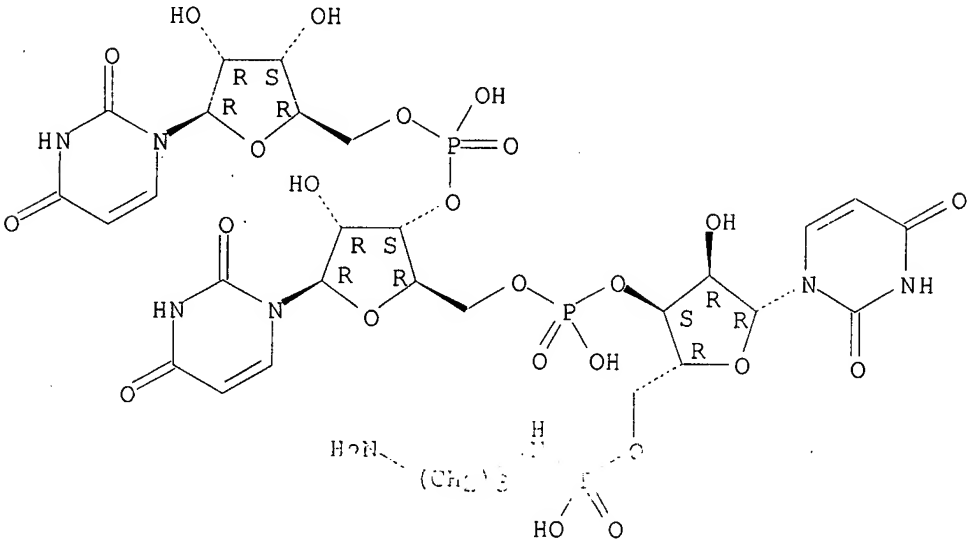


RN 165190-29-4 CAPLUS
CN Uridine, 5'-O-[[(3-aminopropyl)amino]hydroxyphosphinyl]uridylyl-(3'→5')-uridylyl-(3'→5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

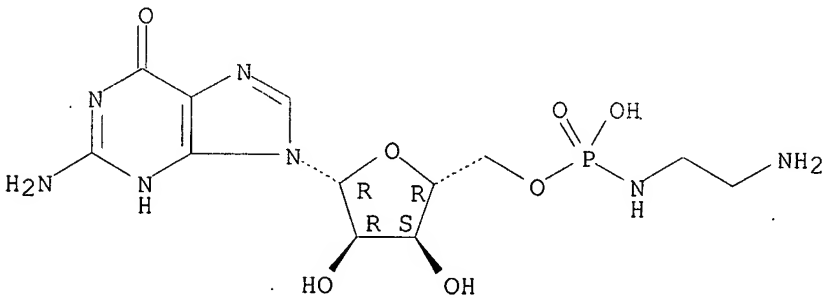


L25 ANSWER 20 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN

reprint of search completed 9-26-06

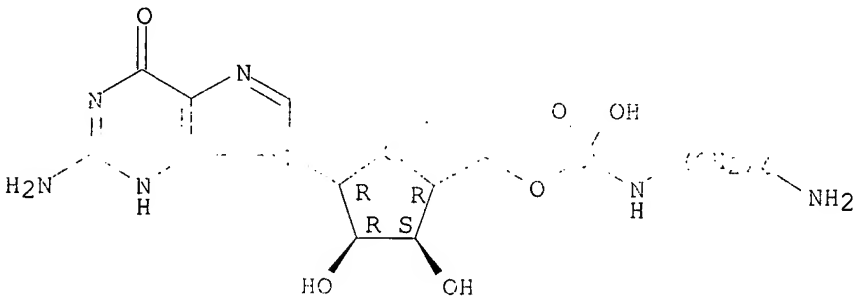
ACCESSION NUMBER: 1994:158032 CAPLUS
DOCUMENT NUMBER: 120:158032
TITLE: Selective tritylation of 5'-hydroxyl group in nucleosides and internal acid-catalyzed N-detritylation of nucleotides
AUTHOR(S): Hakimelahi, Gholam H.; Kunju, Kamala; Lin, Lung Ching; Tsay, Shwu Chen
CORPORATE SOURCE: Inst. Chem., Acad. Sin., Taipei, 115, Taiwan
SOURCE: Bulletin of the Institute of Chemistry, Academia Sinica (1993), 40, 11-16
CODEN: BICMAD; ISSN: 0366-0370
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 02 Apr 1994
AB A general and rapid procedure is described for selective tritylation of the primary hydroxyl group in ribonucleosides. Silver ion was found to have a remarkable effect on the selectivity of tritylation. A simple method was also developed for N-detritylation of an N-tritylated amino-linker in a nucleotide. This deprotection may involve an internal acid-catalyzed pathway.
IT **153311-46-7P 153311-47-8P**
RL: PREP (Preparation)
(preparation of)
RN 153311-46-7 CAPLUS
CN Guanosine, 5'-[hydrogen (2-aminoethyl)phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 153311-47-8 CAPLUS
CN Guanosine, 5'-[hydrogen (4-aminobutyl)phosphoramidate] (9CI) (CA INDEX NAME)

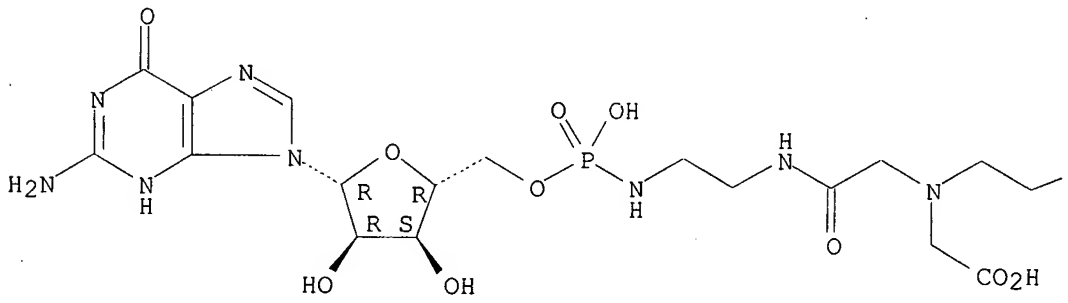
Absolute stereochemistry.



L35 ANSWER 21 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:35058 CAPLUS
DOCUMENT NUMBER: 118:35058
TITLE: Tertiary structure around the guanosine-binding site of the Tetrahymena ribozyme
AUTHOR(S): Wang, Jin Feng; Cech, Thomas R.
CORPORATE SOURCE: Howard Hughes Med. Inst., Univ. Colorado, Boulder, CO, 80309-0215, USA
SOURCE: Science (Washington, DC, United States) (1992), 256(5056), 526-9
CODEN: SCIEAS; ISSN: 0036-8075
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 03 Feb 1993
AB A cleavage reagent directed to the active site of the Tetrahymena catalytic RNA was synthesized by derivatization of the guanosine substrate with a metal chelator. When complexed with iron(II), this reagent cleaved the RNA in five regions. Cleavage at adenosine 207, which is far from the guanosine-binding site in the primary and secondary structure, provides a constraint for the higher order folding of the RNA. This cleavage site constitutes phys. evidence for a key feature of the Michel-Westhof model. Targeting a reactive entity to a specific site should be generally useful for determining proximity within folded RNA mols. or ribonucleoprotein complexes.
IT **143736-71-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with ribozyme of Tetrahymena thermophila, kinetics of)
RN 143736-71-4 CAPLUS
CN Guanosine, 5'-[hydrogen [13-carboxy-6,9,12-tris(carboxymethyl)-4-oxo-3,6,9,12-tetraazatridec-1-yl]phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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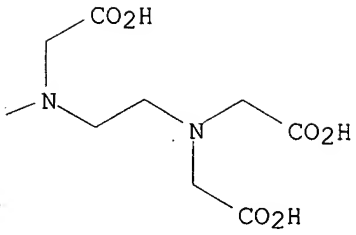

IT **145246-93-1 145246-94-2**
RL: BIOL (Biological study)
(ribozyme of Tetrahymena thermophila affinity cleavage by, guanosine-binding site structure in relation to)
RN 145246-93-1 CAPLUS
CN Ferrate(2-), [guanosine 5'-[hydrogen [2-[[[[2-[bis(carboxymethyl)amino]ethyl](carboxymethyl)amino]acetyl]amino]ethyl]phosphoramidato](4-)]- (9CI) (CA INDEX NAME)

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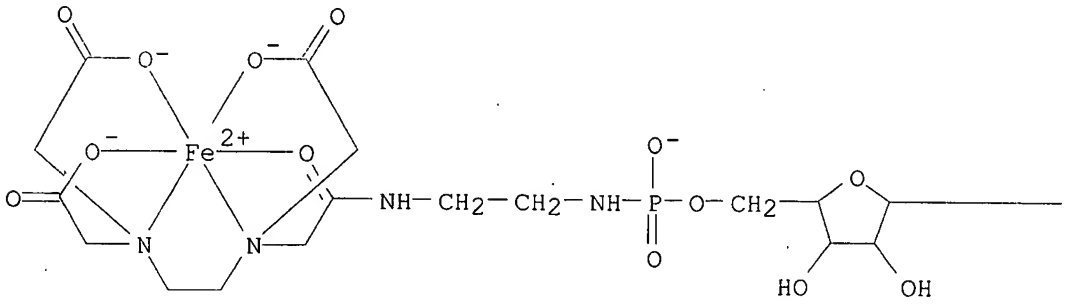

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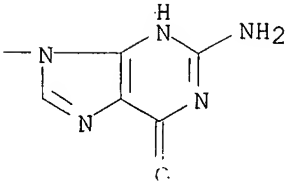

RN 145246-94-2 CAPLUS
CN Ferrate(3-), [guanosine 5'-[hydrogen [13-carboxy-6,9,12-tris(carboxymethyl)-4-oxo-3,6,9,12-tetraazatridec-1-yl]phosphoramidato](5-)]- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L35 ANSWER 22 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:101241 CAPLUS
DOCUMENT NUMBER: 116:101241
TITLE: Template-directed extension of a guanosine 5'-phosphate covalently attached to an oligodeoxycytidylate template
AUTHOR(S): Rodriguez, Libaniel; Orgel, Leslie E.
CORPORATE SOURCE: Salk Inst. Biol. Stud., San Diego, CA, 92186-5800, USA
SOURCE: Journal of Molecular Evolution (1991), 33(6), 477-82
CODEN: JMEVAU; ISSN: 0022-2844
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 20 Mar 1992
AB Mols. in which a guanosine 5'-phosphate (pG) residue is attached to the 3' terminus of a decadeoxycytidylate (pdC)10 template via diamine linkers H2N(CH2)nNH2, n = 4-7 were prepared The pG residue acts as a primer and is extended very efficiently by incubation with activated pG derivs. to give products containing 6-9 G residues in >80% yield. The detailed nature of the product distribution is discussed.
IT **139050-03-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and template-direct extension of)
RN 139050-03-6 CAPLUS
CN Guanosine, 2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylylimino-1,4-butanediyliminophosphinico-(3'→5')- (9CI) (CA INDEX NAME)

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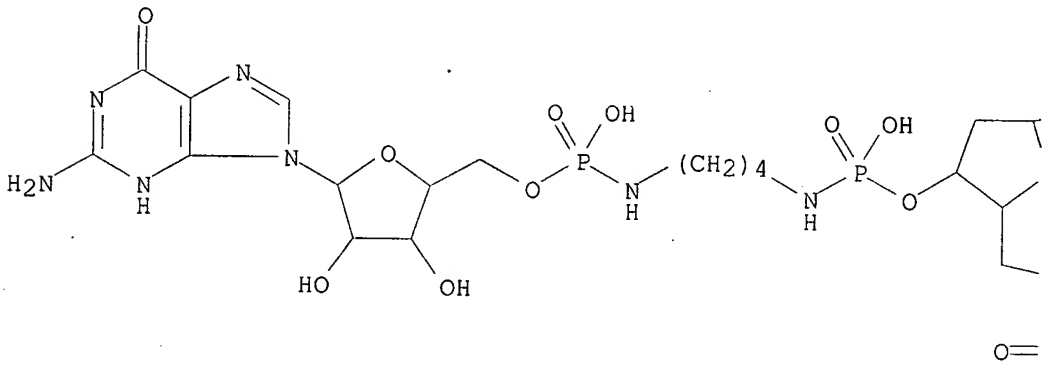
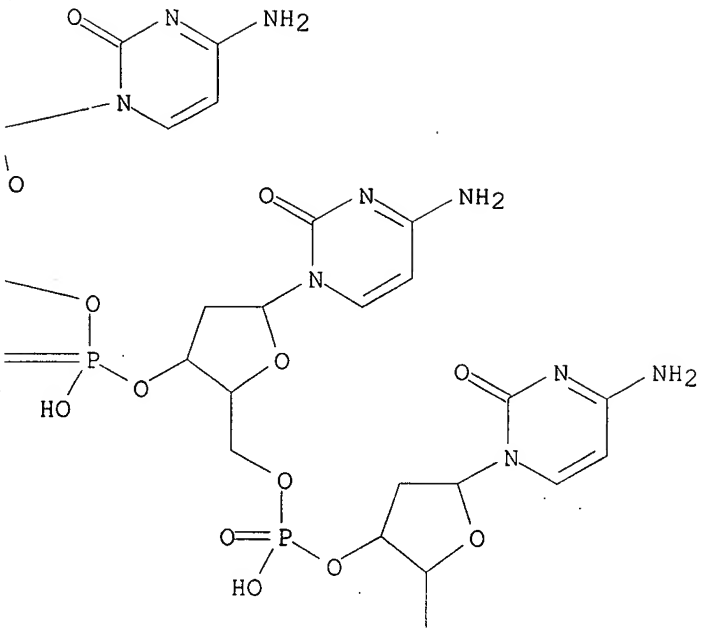


PAGE 1-B



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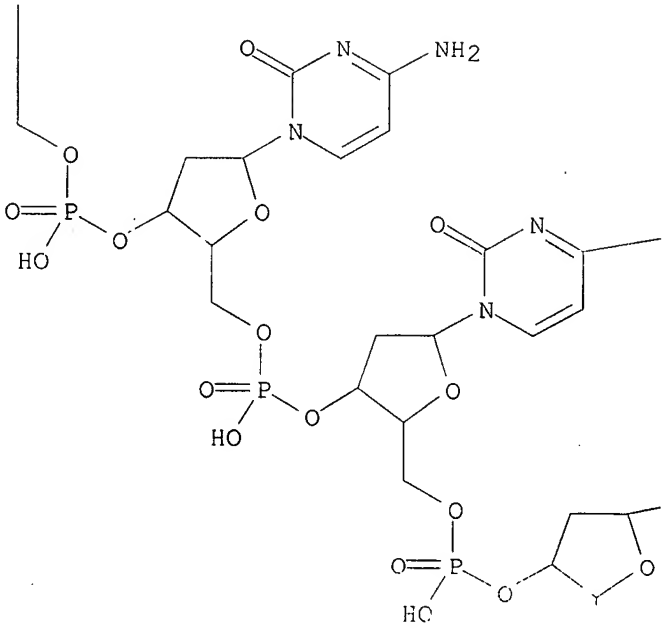

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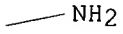
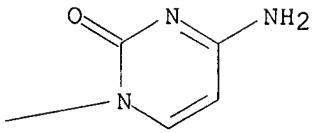
PAGE 2-C





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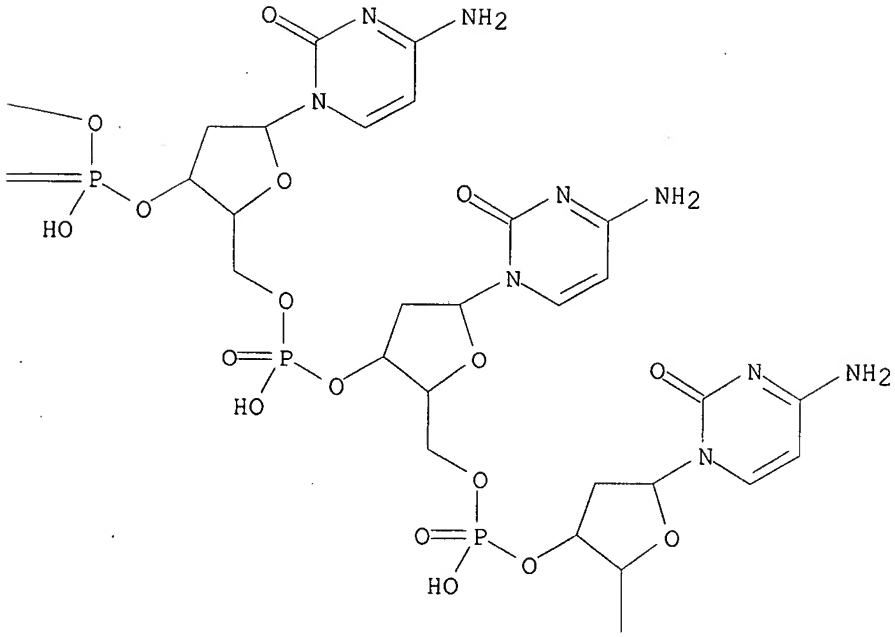
PAGE 3-C



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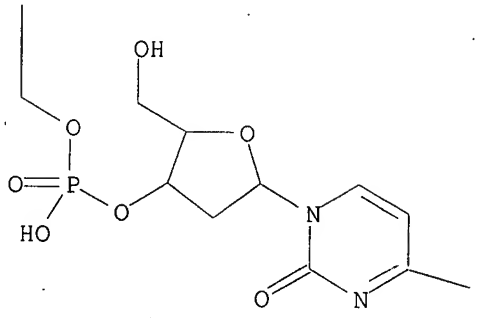
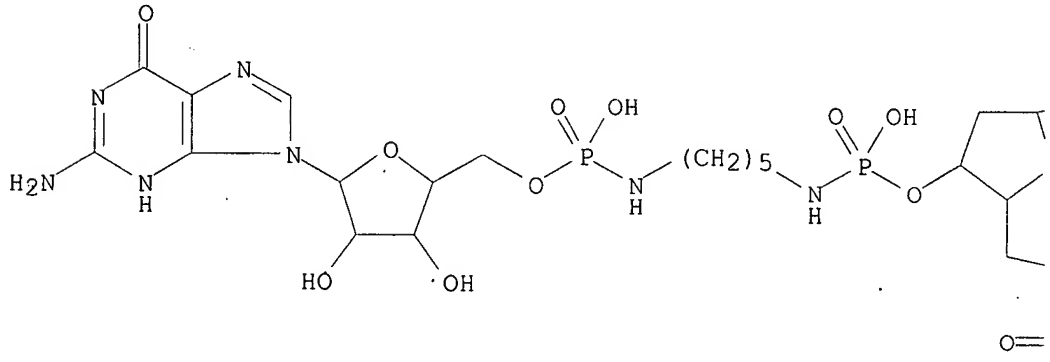


PAGE 4-D

IT **139050-07-0 139050-08-1 139050-09-2**
RL: BIOL (Biological study)
(template-directed oligonucleotide extension in relation to)
RN 139050-07-0 CAPLUS
CN Guanosine, 2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylylimino-1,5-pentanediyliminophosphinico-(3'→5')- (9CI) (CA INDEX NAME)

PAGE 1-A



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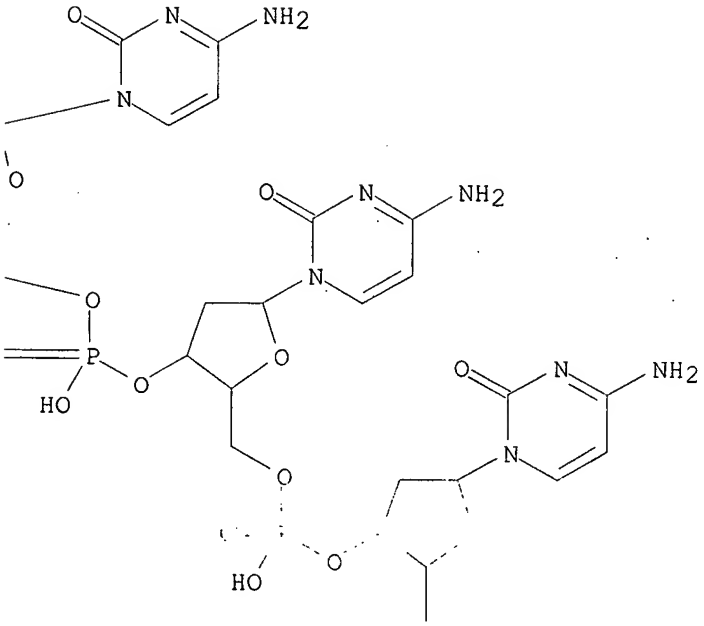

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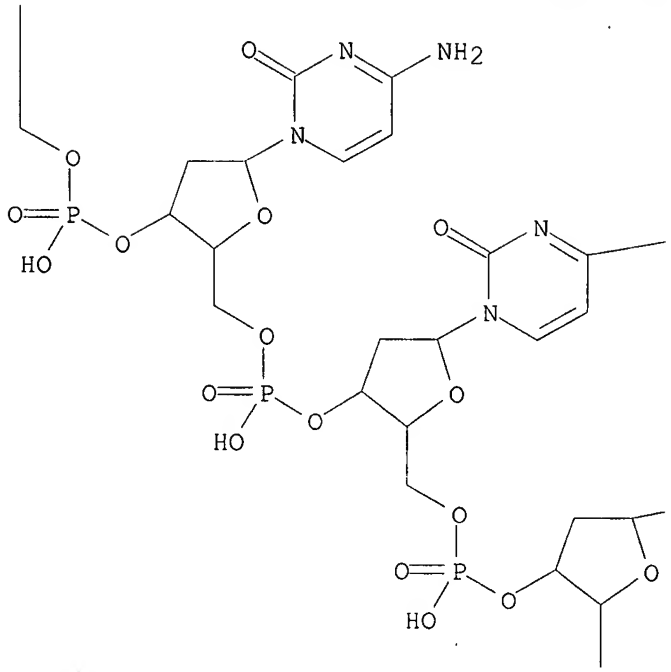

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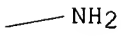

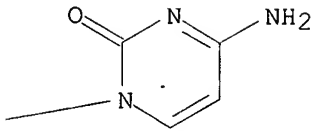

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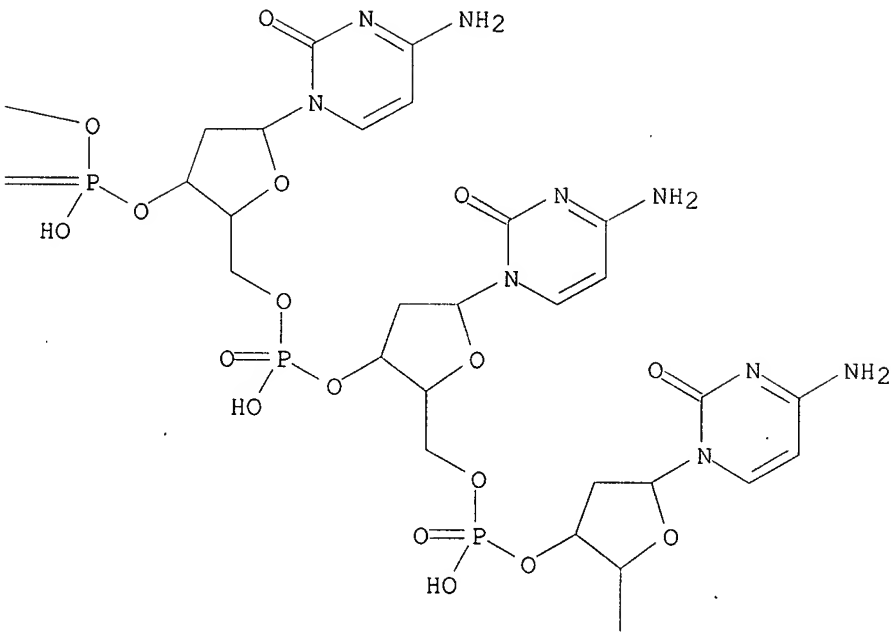
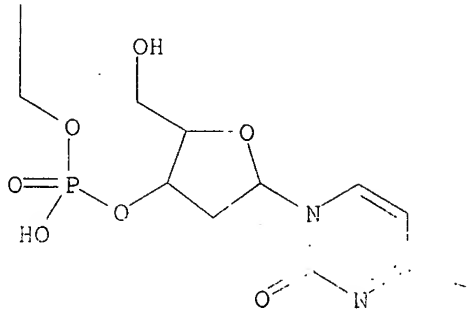
PAGE 3-C



PAGE 4-C

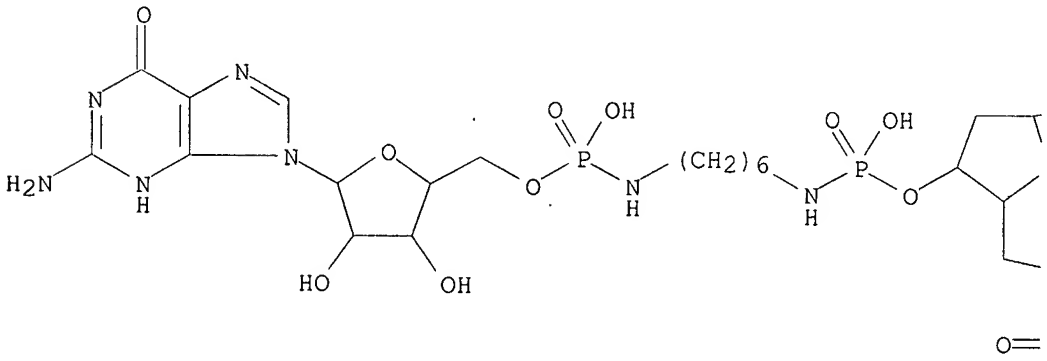


PAGE 4-D

—NH_2

RN 139050-08-1 CAPLUS
CN Guanosine, 2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylylimino-1,6-hexanediyliminophosphinico-(3'→5')- (9CI) (CA INDEX NAME)

PAGE 1-A



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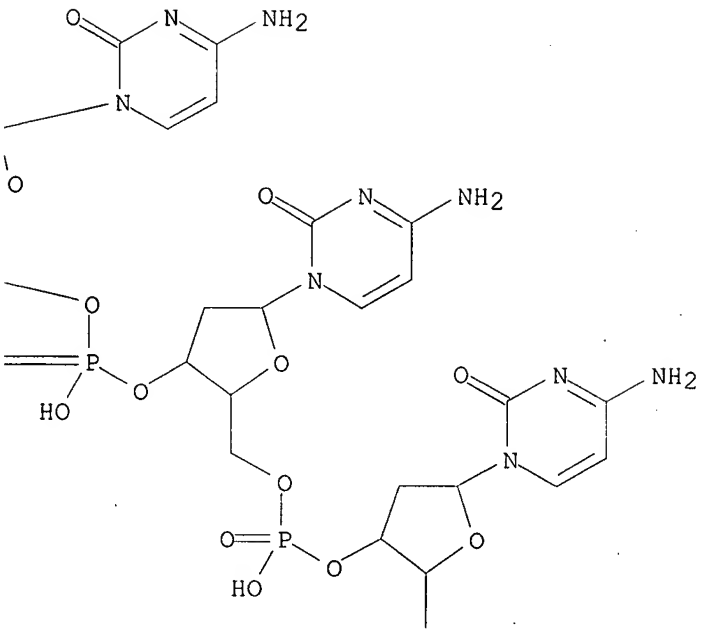

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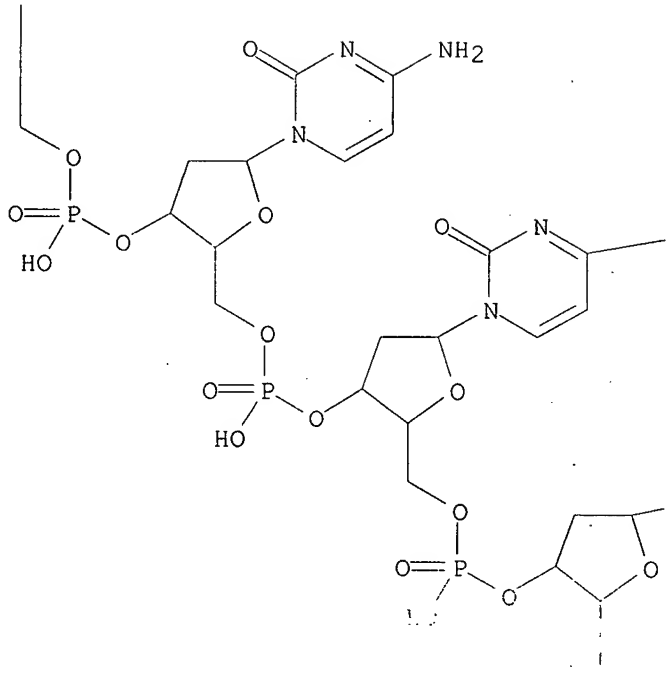

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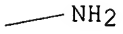
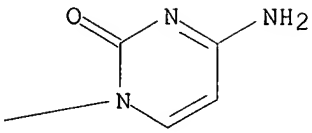
PAGE 2-C





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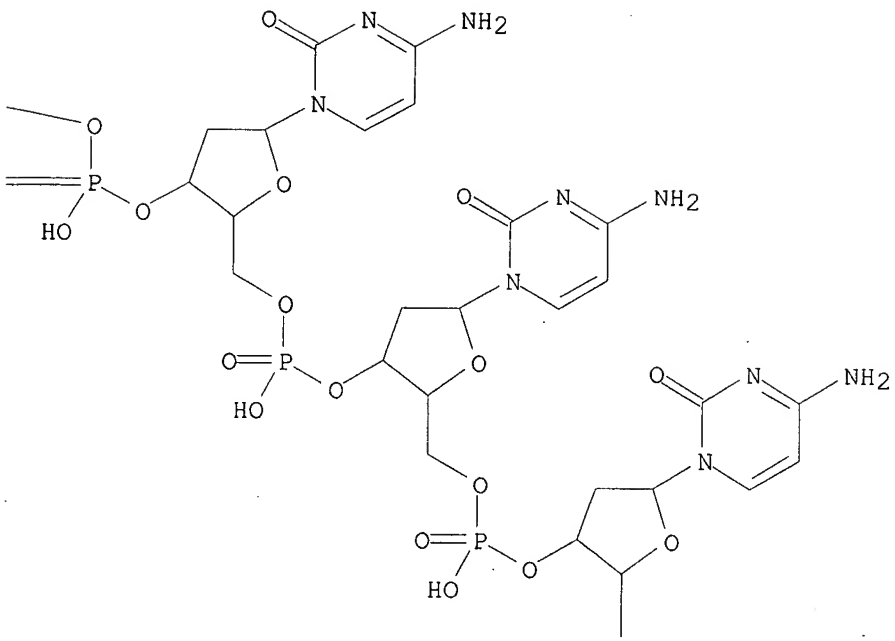
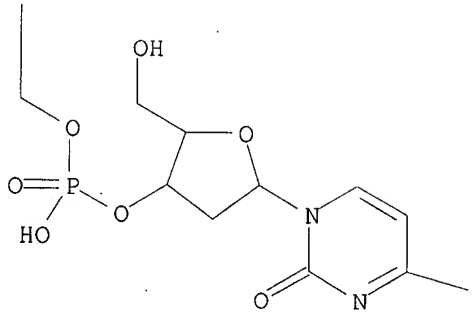
PAGE 3-C



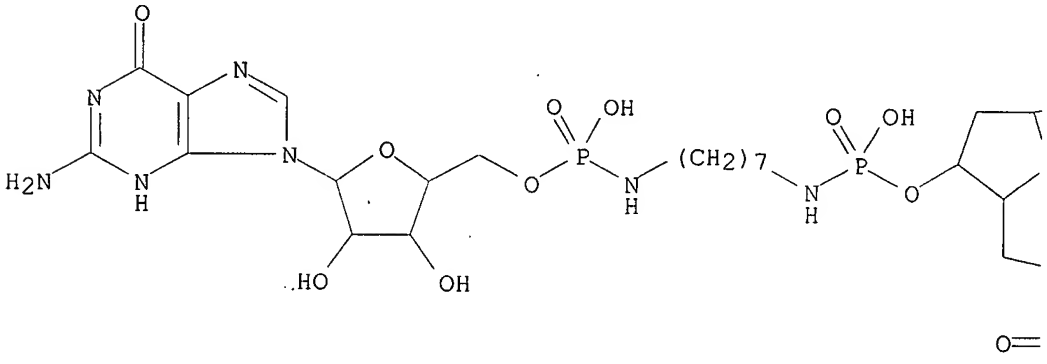
PAGE 4-C



PAGE 4-D

RN 139050-09-2 CAPLUS
CN Guanosine, 2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylyl-(3'→5')-2'-deoxycytidylylimino-1,7-heptanediyliminophosphinico-(3'→5')- (9CI) (CA INDEX NAME)

PAGE 1-A



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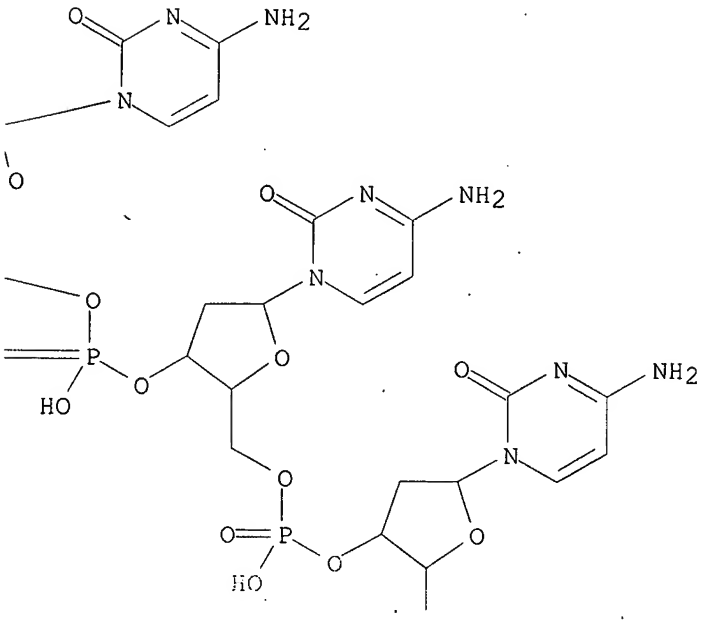

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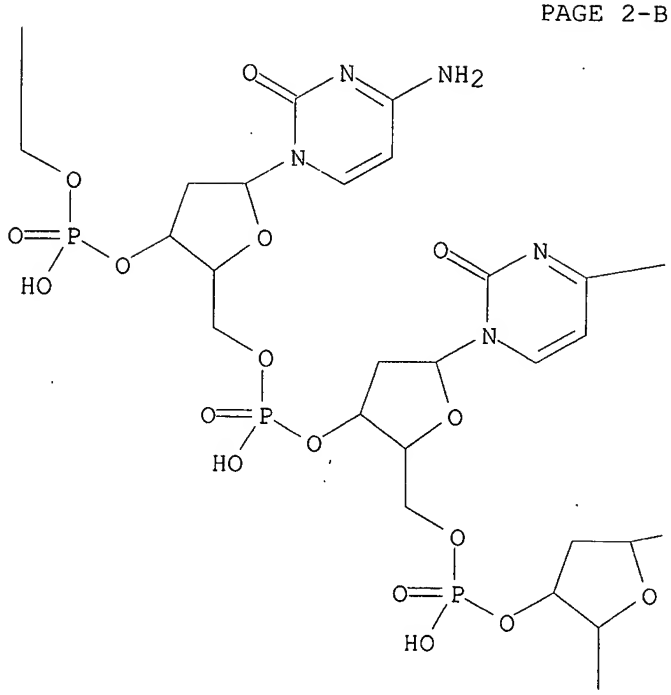

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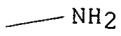

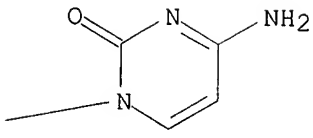

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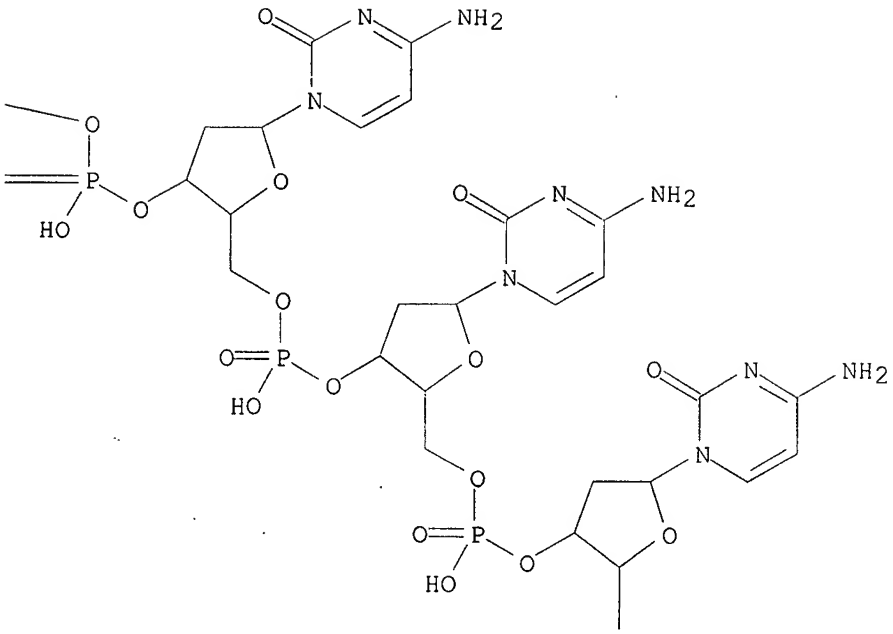
PAGE 3-C



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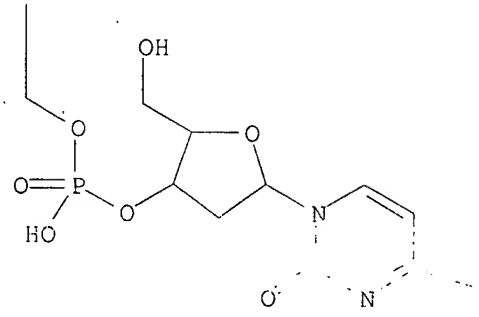

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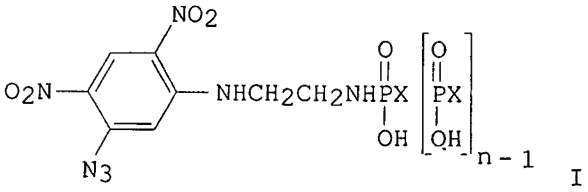
—NH_2

L35 ANSWER 23 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1984:586326 CAPLUS
DOCUMENT NUMBER: 101:186326
TITLE: Affinity labeling of ribosomes from Escherichia coli with photoactivated analogs of mRNA
AUTHOR(S): Gimautdinova, O. I.; Zenkova, M. A.; Karpova, G. G.; Podust, L. M.
CORPORATE SOURCE: Inst. Org. Chem., Novosibirsk, USSR
SOURCE: Molekulyarnaya Biologiya (Moscow) (1984), 18(4), 907-18
CODEN: MOBIBO; ISSN: 0026-8984
DOCUMENT TYPE: Journal
LANGUAGE: Russian
ED Entered STN: 25 Nov 1984
GI



I

AB Oligonucleotide [2-(N-2,4-dinitro-5-azidophenyl)aminoethyl]phosphamides (I, where X = nucleoside and n = total number of X units) were prepared and used as mRNA analogs to photoaffinity label E. coli ribosomes. Up to 10% of I, bound in the tRNA-ribosome-I complex, is crosslinked with ribosomal proteins of the 30 S and 50 S subunits. I (where X = uridine and n = 4, 7, or 8), which did not modify rRNA, modified proteins S3, S4, S9, S11, S12, S14, S17, S19, and S20 in the 30 S subunit and proteins L2, L13, L16, L27, L32, and L33 in the 50 S subunit. The specific proteins modified depended on oligonucleotide length, and the modification required the presence of tRNA in the ribosome A site.

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and Escherichia coli ribosomes photoaffinity labeling by)

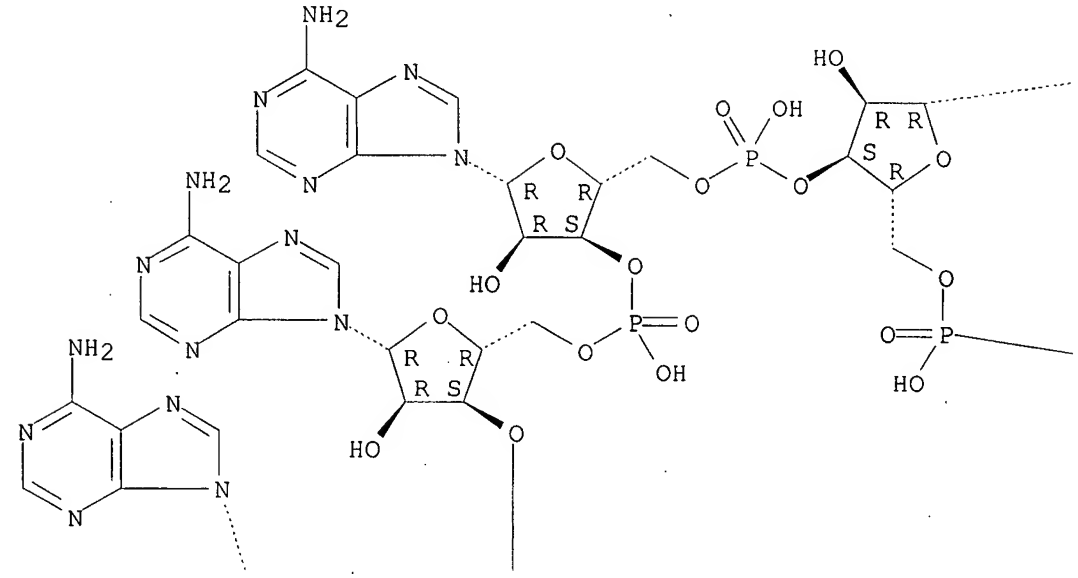
RN 92830-06-3 CAPLUS

CN Adenosine, 5'-O-[[[2-[(5-azido-2,4-dinitrophenyl)amino]ethyl]amino]hydroxyphosphinyl]adenylyl-(3'→5')-adenylyl-(3'→5')-adenylyl-

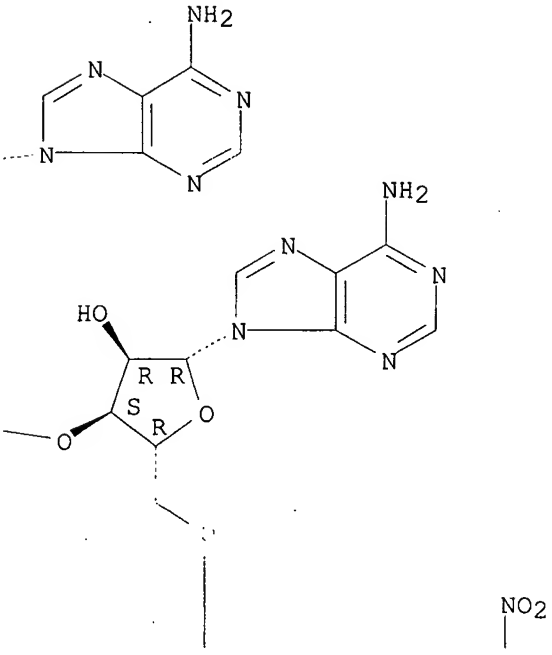
(3'→5')-adenylyl-(3'→5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

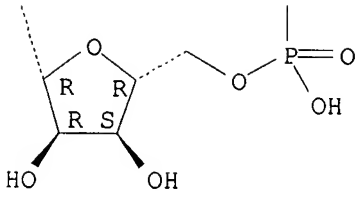
PAGE 1-A



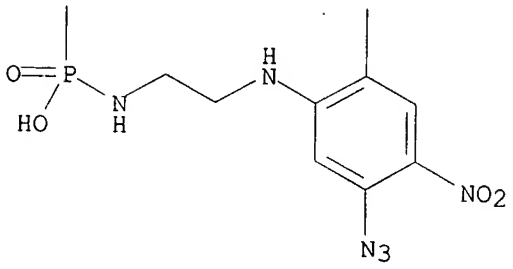
PAGE 1-B



PAGE 2-A



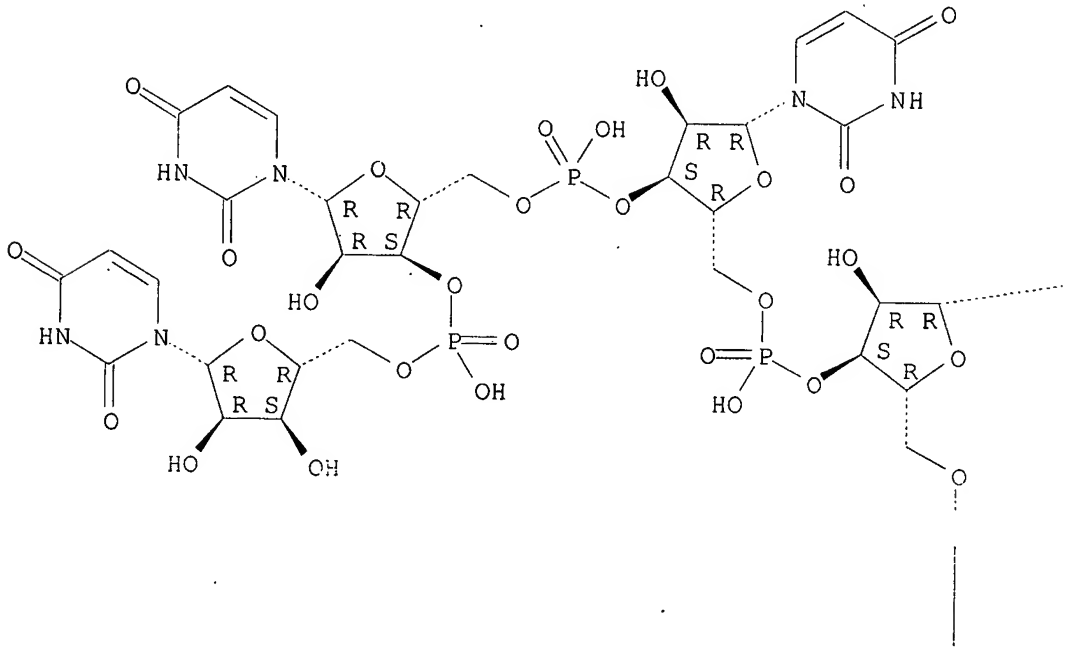
PAGE 2-B



RN 92830-07-4 CAPLUS
CN Uridine, 5'-O-[[[2-[(5-azido-2,4-dinitrophenyl)amino]ethyl]amino]hydroxyphosphinyl]uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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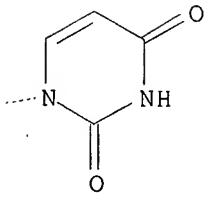
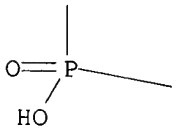


PAGE 2-A



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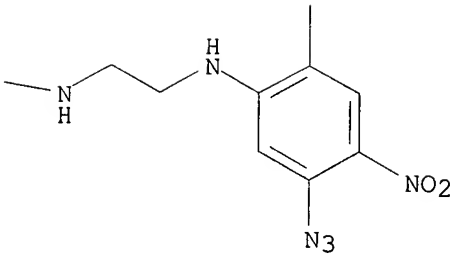
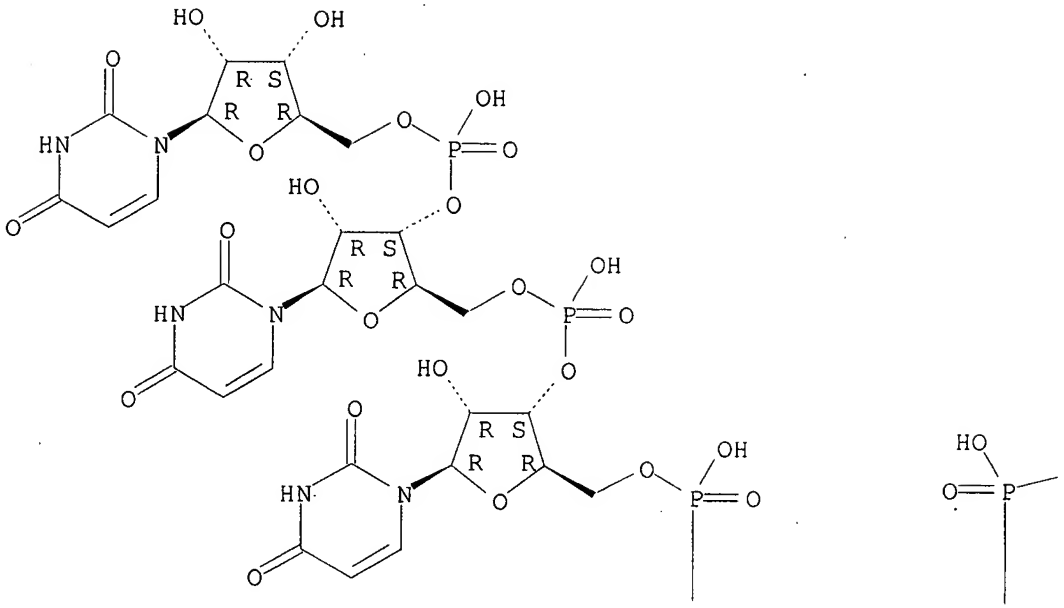


RN 203833-08-5 CAPLUS

CN Uridine, 3'-O-[[[2-[(5-azido-2,4-dinitrophenyl)amino]ethyl]amino]hydroxyphosphinyl]uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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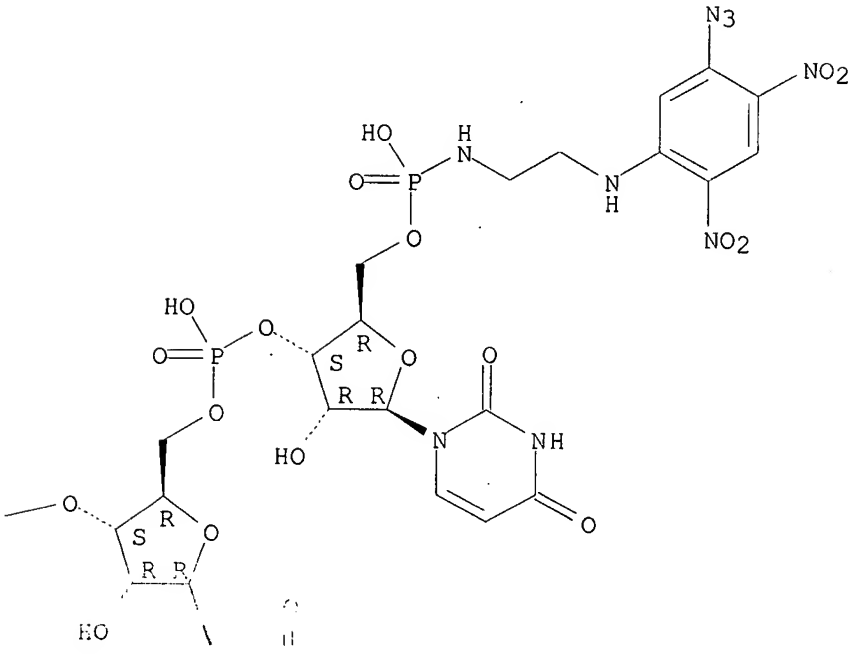

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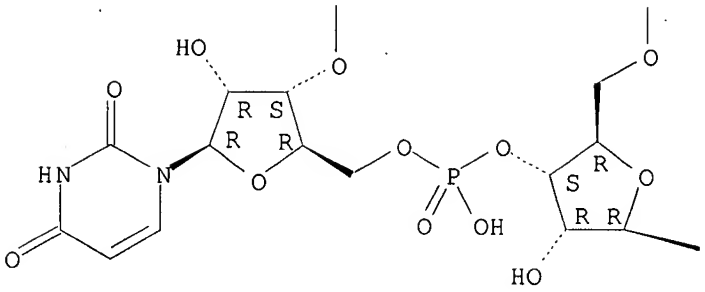
PAGE 2-A



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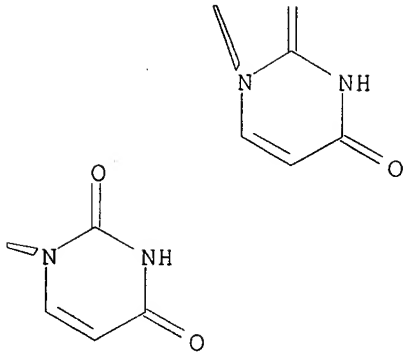
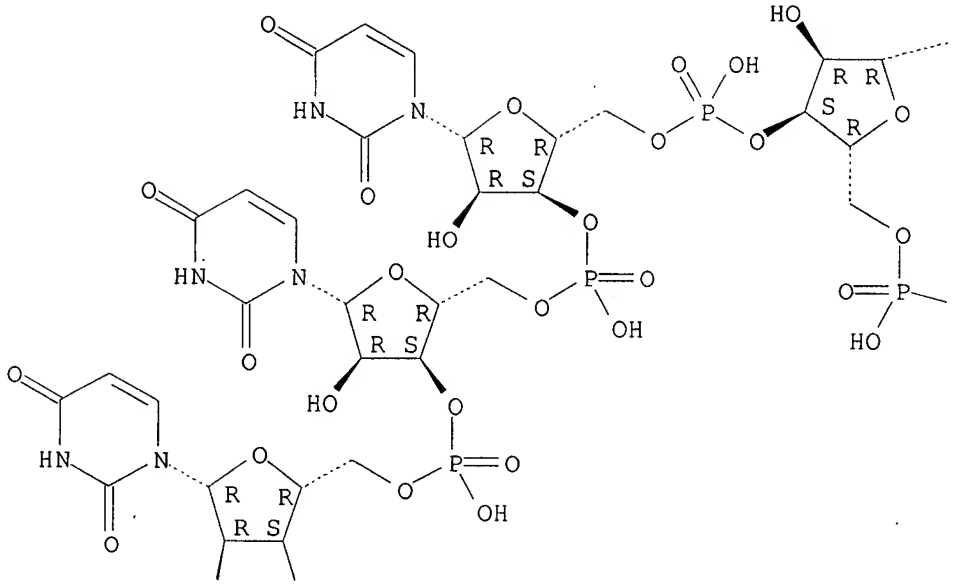


RN 92830-09-6 CAPLUS
CN Uridine, 5'-O-[[[2-[(5-azido-2,4-dinitrophenyl)amino]ethyl]amino]hydroxyphosphinyl]uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')-uridylyl-(3'→5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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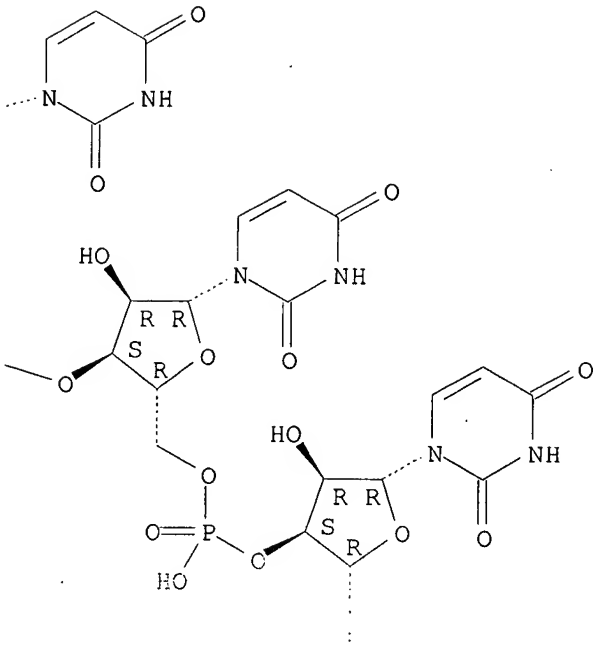

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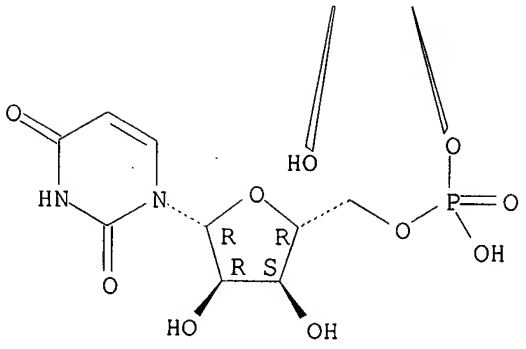

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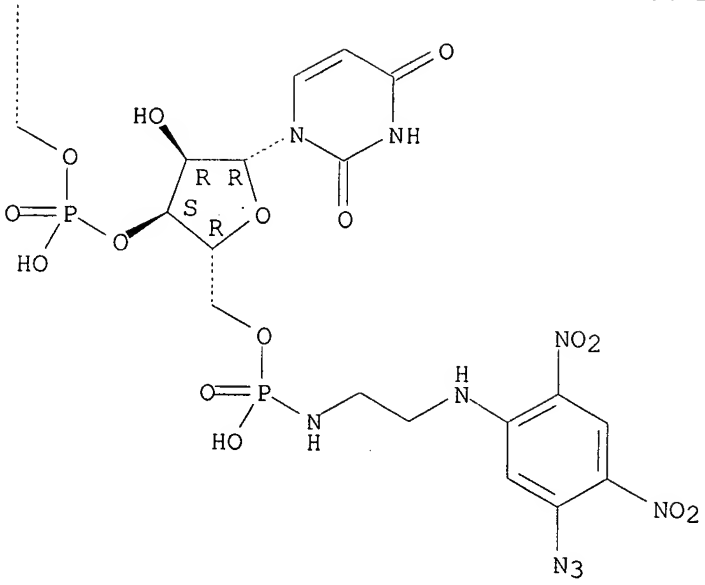


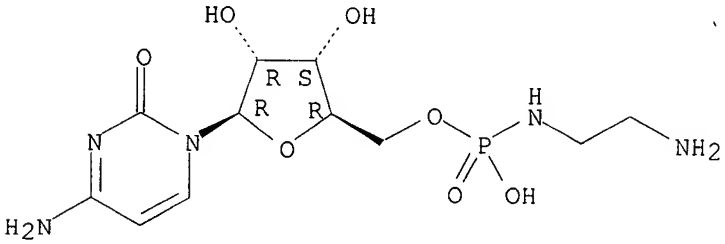
L35 ANSWER 24 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1984:86050 CAPLUS
DOCUMENT NUMBER: 100:86050
TITLE: Derivatization of unprotected polynucleotides
AUTHOR(S): Chu, Barbara C. F.; Wahl, Geoffrey M.; Orgel, Leslie E.
CORPORATE SOURCE: Salk Inst. Biol. Stud., San Diego, CA, 92138, USA
SOURCE: Nucleic Acids Research (1983), 11(18), 6513-29
CODEN: NARHAD; ISSN: 0305-1048
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB A simple and efficient method for attaching amines to the terminal 5'-phosphate of unprotected oligonucleotides or nucleic acids in aqueous solution is described. The method is applicable to low mol. wt. amines, polypeptides, or proteins. The terminal 5'-phosphate of an

oligonucleotide or nucleic acid reacts with a water-soluble carbodiimide in imidazole buffer at pH 6 to give good yields of the 5'-phosphorimidazolide. Exposure of the phosphorimidazolide to amine-containing mols. in aqueous solution results in the production of a wide range of stable phosphoramidates in high yield. The exposure of polynucleotides to carbodiimide does not result in significant breakage of phosphodiester bonds or damage to nucleoside bases. The biol. activity of a drug resistant plasmid is not affected. The direct condensation of polynucleotides with amines in 1-methylimidazole buffer is also possible. However, it is not a satisfactory preparative method if the ligand is sensitive to carbodiimide.

IT **88770-27-8P 88770-28-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

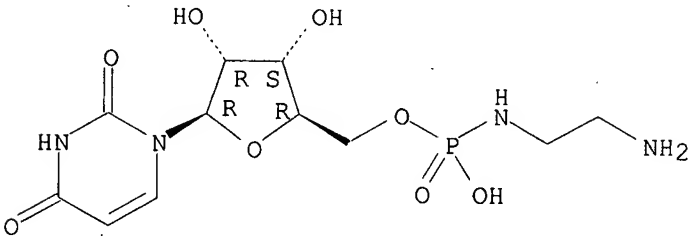
RN 88770-27-8 CAPLUS
CN Cytidine, 5'-[hydrogen (2-aminoethyl)phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 88770-28-9 CAPLUS
CN Uridine, 5'-[hydrogen (2-aminoethyl)phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

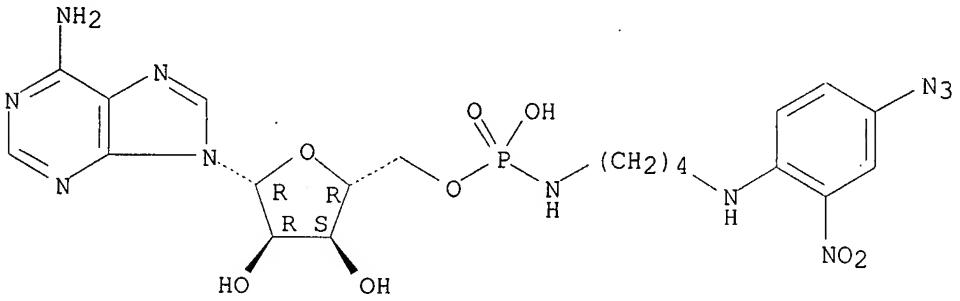


L35 ANSWER 25 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1978:132339 CAPLUS
DOCUMENT NUMBER: 88:132339
TITLE: Reduction of aryl azides by thiols: implications for the design of photoaffinity reagents
AUTHOR(S): Bayley, Hagan; Standring, David N.; Knowles, Jeremy R.
CORPORATE SOURCE: Dep. Chem., Harvard Univ., Cambridge, MA, USA
SOURCE: Biochemical and Biophysical Research Communications (1978), 80(2), 568-72
CODEN: BBRCA9; ISSN: 0006-291X

reprint of search completed 9-26-06

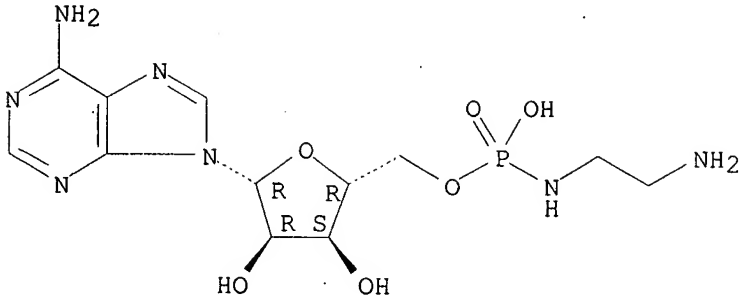
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB Aryl azides are rapidly reduced by dithiothreitol at room temperature to the corresponding aryl amines. Glutathione and 2-mercaptoethanol reacted much more slowly. The relevance of this reaction to expts. involving aryl azide photoaffinity reagents is discussed.
IT **66066-78-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reduction of, by dithiothreitol)
RN 66066-78-2 CAPLUS
CN Adenosine, 5'-[hydrogen [4-[(4-azido-2-nitrophenyl)amino]butyl]phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

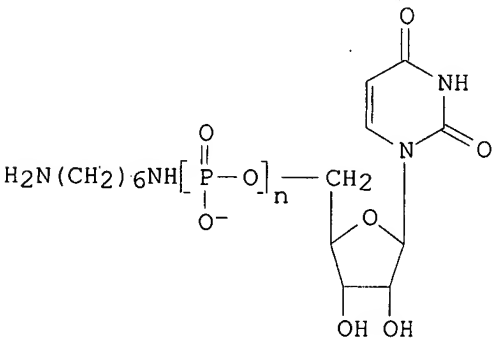


L35 ANSWER 26 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1978:33367 CAPLUS
DOCUMENT NUMBER: 88:33367
TITLE: Formation of nucleoside 5'-phosphoramidates under potentially prebiological conditions
AUTHOR(S): Lohrmann, R.
CORPORATE SOURCE: Salk Inst. Biol. Stud., San Diego, CA, USA
SOURCE: Journal of Molecular Evolution (1977), 10(2), 137-54
CODEN: JMEVAU; ISSN: 0022-2844
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB Adenosine 5'-phosphoramidates form when solns. containing adenosine 5'-polyphosphates pnA (n ≥3) or P1,P2-diadenosine 5'-diphosphate and amines are allowed to dry out. Mg2+ catalyzes these reactions. Systems containing NH3, imidazole, glycine, ethylenediamine, and histamine were studied. The yields of adenosine 5'-phosphoramidates ranged from 10-50%, based on the nucleotide. The prebiotic significance of the reactions is discussed.
IT **52904-72-0P**
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, under prebiotic conditions)
RN 52904-72-0 CAPLUS
CN Adenosine, 5'-[hydrogen (2-aminoethyl)phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L35 ANSWER 27 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1977:121683 CAPLUS
DOCUMENT NUMBER: 86:121683
TITLE: New affinity-chromatography adsorbents derived from uridine nucleotide phosphoryl amides
AUTHOR(S): Shibaev, V. N.; Kusov, Yu. Yu.; Kalinchuk, N. A.; Kochetkov, N. K.
CORPORATE SOURCE: N. D. Zelinskii Inst. Org. Chem., Moscow, USSR
SOURCE: Bioorganicheskaya Khimiya (1977), 3(1), 120-6
CODEN: BIKHD7; ISSN: 0132-3423
DOCUMENT TYPE: Journal
LANGUAGE: Russian
ED Entered STN: 12 May 1984
GI



I

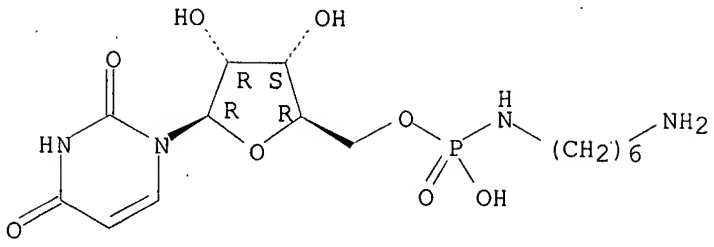
AB UDP and UMP condensed with Me3C6H2COCl to give mesitoic mixed anhydrides which were treated with H2N(CH2)6NH2 to give 63 and 53% I (n = 1,2). Treatment of the latter with BrCN-activated sepharose gave chromatog. adsorbents which contained immobilized UMP or UDP residues linked to the matrix through a phosphoamide bond.

IT **62149-09-1DP**, sepharose bound
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and chromatog. adsorbent properties of)

RN 62149-09-1 CAPLUS

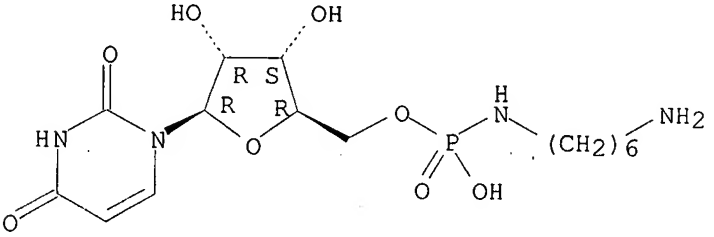
CN Uridine, 5'-[hydrogen (6-aminohexyl)phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



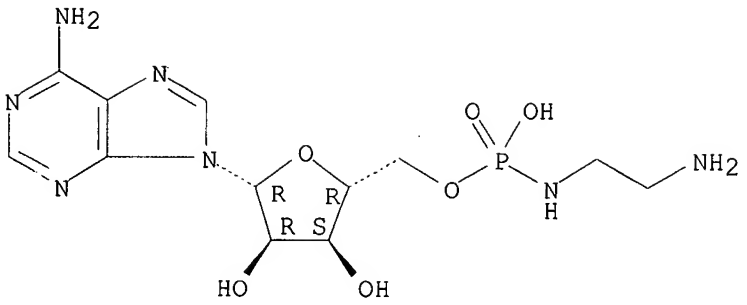
IT **62149-09-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction with cyanogen bromide-activated sepharose)
RN 62149-09-1 CAPLUS
CN Uridine, 5'-[hydrogen (6-aminohexyl)phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L35 ANSWER 28 OF 34 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1974:500920 CAPLUS
DOCUMENT NUMBER: 81:100920
TITLE: Possible role of crystals in the origins of life. VII. Adsorption and polymerization of phosphoramidates by montmorillonite clay
AUTHOR(S): Burton, F. G.; Lohrmann, R.; Orgel, L. E.
CORPORATE SOURCE: Salk Inst. Biol. Stud., San Diego, CA, USA
SOURCE: Journal of Molecular Evolution (1974), 3(2), 141-50
CODEN: JMEVAU; ISSN: 0022-2844
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB Nucleoside phosphoramidates derived from polyamines containing ≥3 amine groups are strongly adsorbed by Na and Mg montmorillonite clays even from very dilute solns. Heating the dried clay-phosphoramidate mixture results in the production of small amts. of the dinucleotides.
IT **52904-72-0**
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(adsorption of, by montmorillonite)
RN 52904-72-0 CAPLUS
CN Uridine, 5'-[hydrogen (2-aminoethyl)phosphoramidate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L35 ANSWER 29 OF 34 USPATFULL on STN

ACCESSION NUMBER:	2006:215728 USPATFULL
TITLE:	Ligands to enhance cellular uptake of biomolecules
INVENTOR(S):	Tso, Paul O.P., Ellicott City, MD, UNITED STATES Duff, Robert, York, PA, UNITED STATES Zhou, Yuanzhong, Columbia, MA, UNITED STATES Deamond, Scott, Baltimore, MD, UNITED STATES Roby, Clinton, Baltimore, MD, UNITED STATES
PATENT ASSIGNEE(S):	Cell Works Therapeutics, Inc., a Delaware corporation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006183886	A1	20060817
APPLICATION INFO.:	US 2005-256476	A1	20051021 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 2001-888164, filed on 22 Jun 2001, ABANDONED Continuation of Ser. No. US 1999-282455, filed on 31 Mar 1999, ABANDONED Continuation-in-part of Ser. No. US 1996-755062, filed on 22 Nov 1996, GRANTED, Pat. No. US 5994517		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-7480P	19951122 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	FISH & RICHARDSON PC, P.O. BOX 1022, MINNEAPOLIS, MN, 55440-1022, US
NUMBER OF CLAIMS:	22
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	20 Drawing Page(s)
LINE COUNT:	2731

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to the design and synthesis of homogeneous A-L-P constructs, which contain a hepatic ligand to direct an oligomer or "payload" to a hepatocyte intracellularly via a receptor-mediated, ligand-directed pathway.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 192574-41-7

(ligands to enhance cellular uptake of biomols.)

RN 192574-41-7 USPATFULL

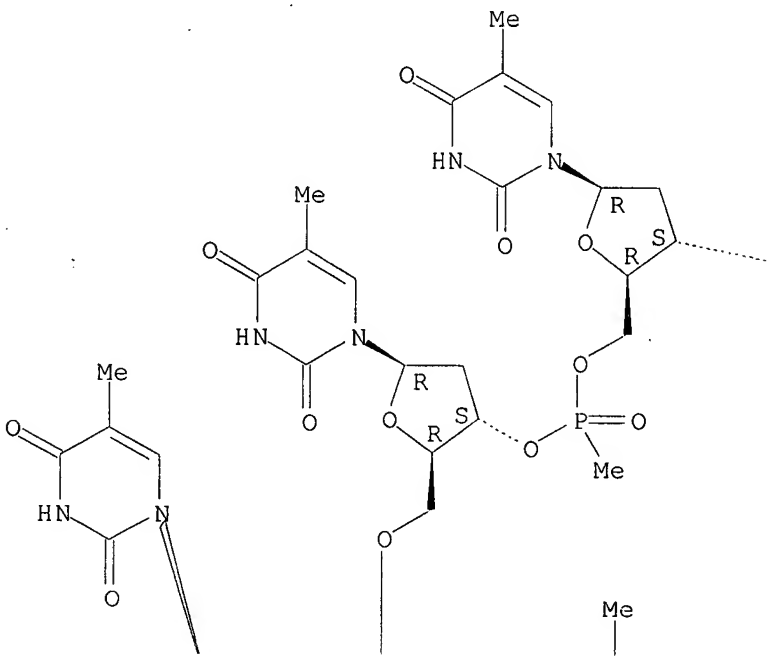
CN Thymidine, 5'-O-[[(2-aminoethyl)amino]hydroxyphosphinyl]-2'-O-methyluridylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')-P-deoxy-P-methylthymidylyl-

reprint of search completed 9-26-06

(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

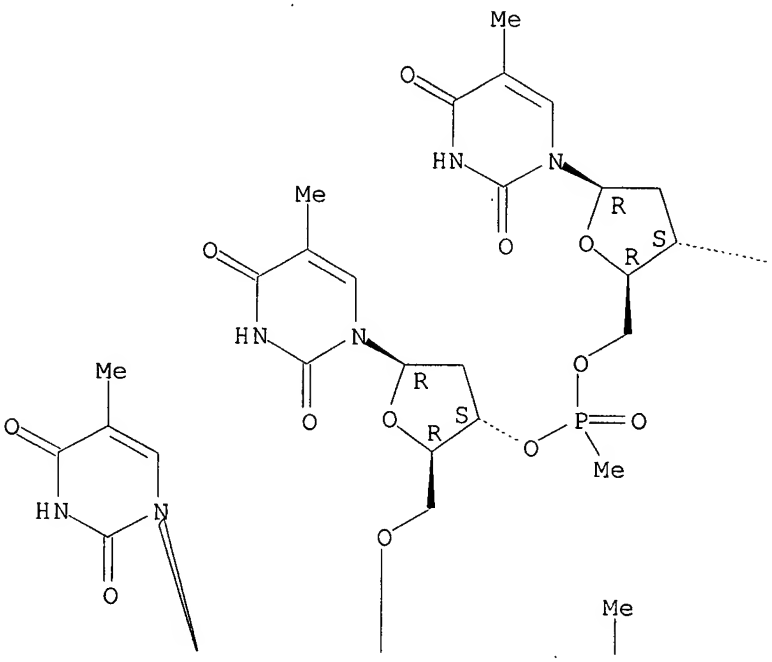
PAGE 1-A



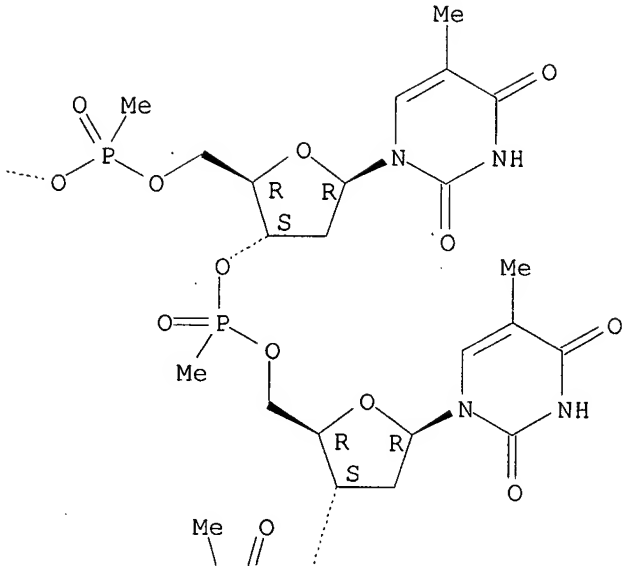
(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

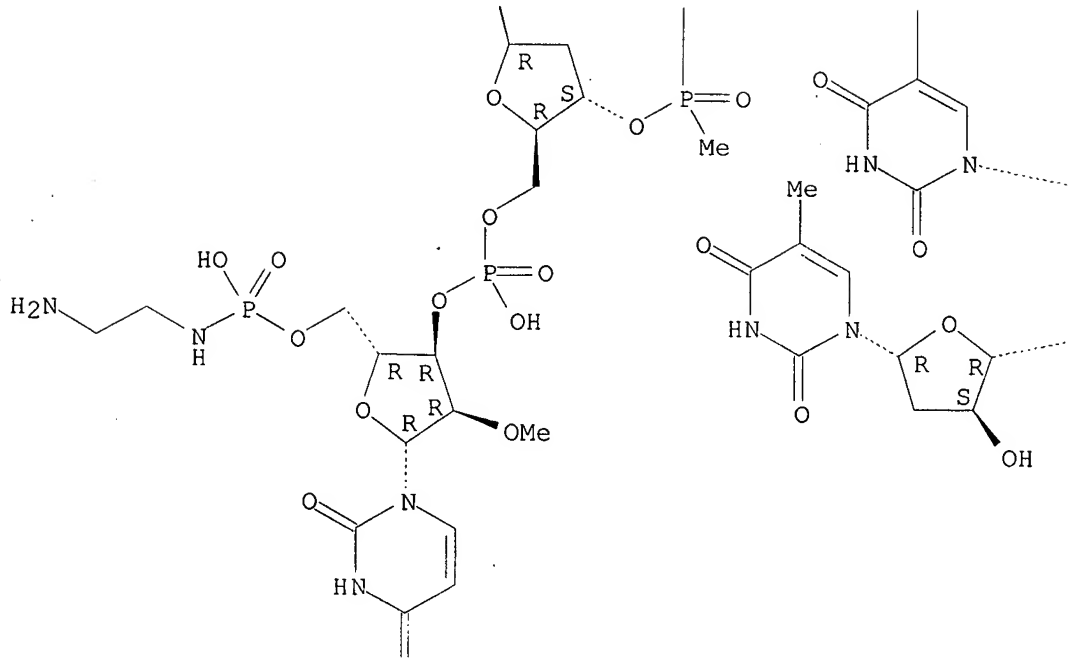
PAGE 1-A



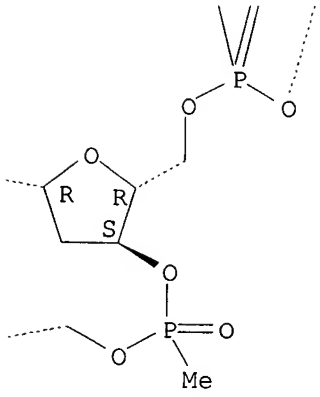
PAGE 1-B



PAGE 2-A



PAGE 2-B



PAGE 3-A

L35 ANSWER 30 OF 34 USPATFULL on STN

ACCESSION NUMBER: 2003:173876 USPATFULL

TITLE: Ligands to enhance cellular uptake of biomolecules

INVENTOR(S): Ts`o, Paul O.P., Ellicott City, MD, UNITED STATES
Duff, Robert, York, PA, UNITED STATES
Zhou, Yuanzhong, Columbia, MD, UNITED STATES
Deamond, Scott, Baltimore, MD, UNITED STATES
Roby, Clinton, Baltimore, MD, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003119724	A1	20030626
APPLICATION INFO.:	US 2001-888164	A1	20010622 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-282455, filed on 31 Mar 1999, ABANDONED Continuation-in-part of Ser. No. US 1996-755062, filed on 22 Nov 1996, GRANTED, Pat. No. US 5994517

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-7480P	19951122 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: LEYDIG VOIT & MAYER, LTD, TWO PRUDENTIAL PLAZA, SUITE 4900, 180 NORTH STETSON AVENUE, CHICAGO, IL, 60601-6780

NUMBER OF CLAIMS: 71

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 20 Drawing Page(s)

LINE COUNT: 2789

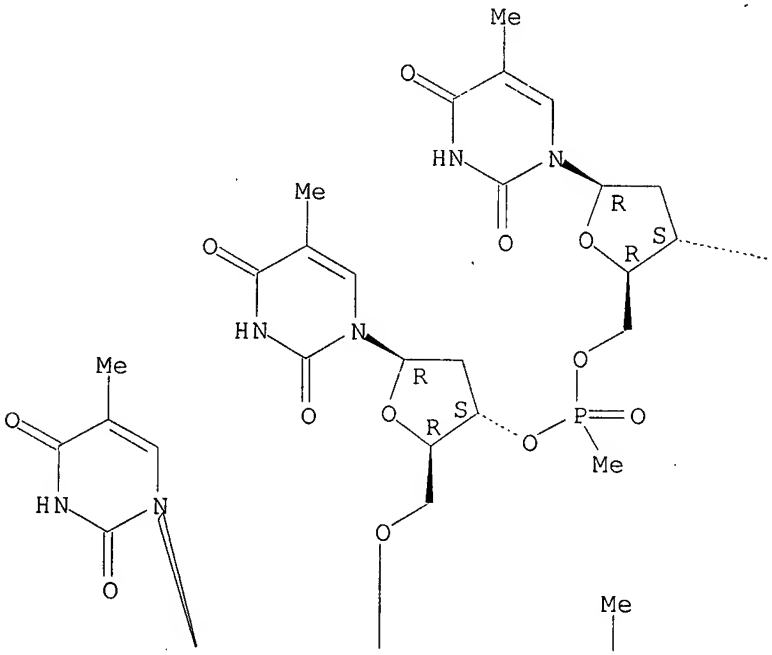
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to the design and synthesis of homogeneous A-L-P constructs, which contain a hepatic ligand to direct an oligomer or "payload" to a hepatocyte intracellularly via a receptor-mediated, ligand-directed pathway.

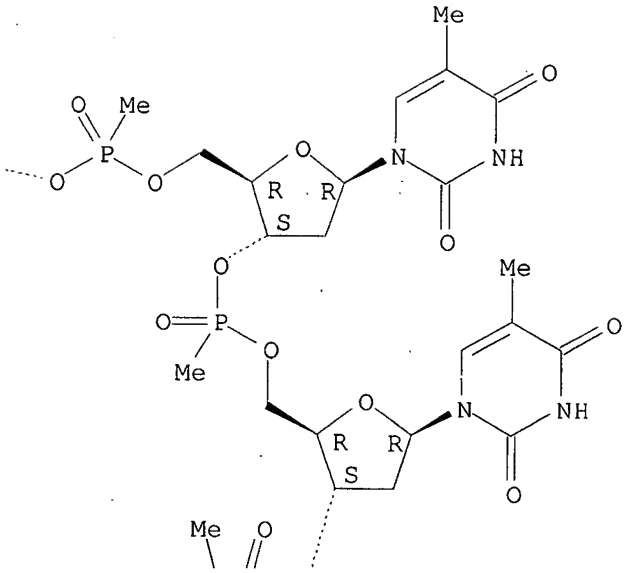
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **192574-41-7P**
(ligands to enhance cellular uptake of biomols.)
RN 192574-41-7 USPATFULL
CN Thymidine, 5'-O-[[(2-aminoethyl)amino]hydroxyphosphinyl]-2'-O-methyluridylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

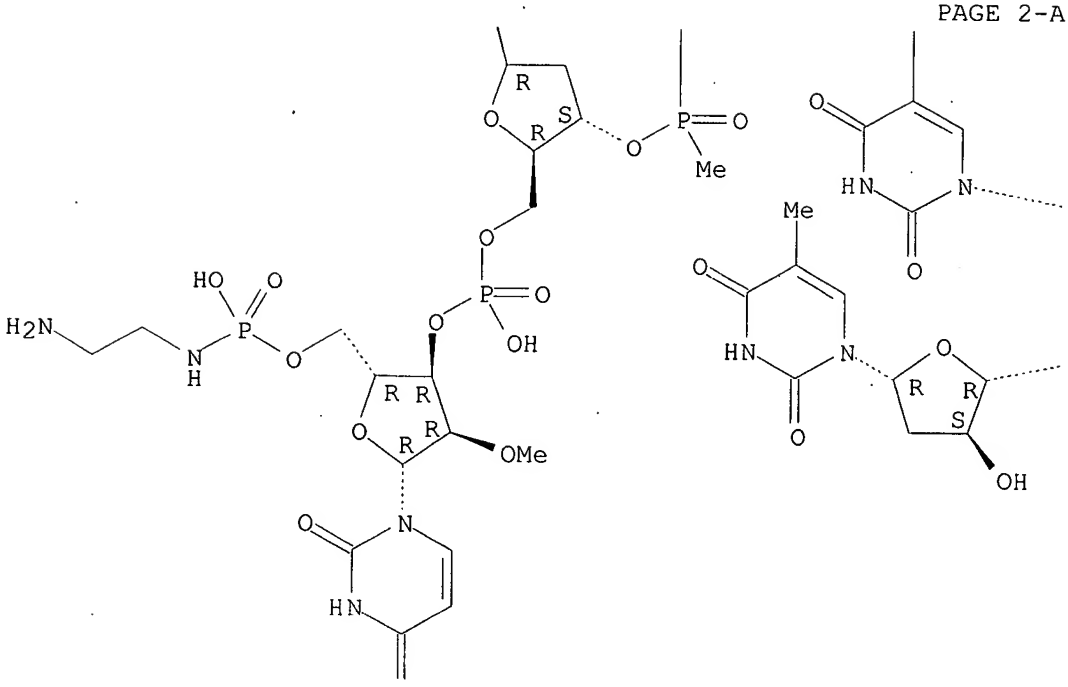
PAGE 1-A



PAGE 1-B



PAGE 2-A



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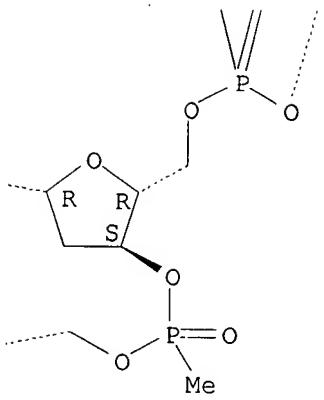


PAGE 3-A

L35 ANSWER 31 OF 34 USPATFULL on STN

ACCESSION NUMBER:	1999:155900 USPATFULL
TITLE:	Ligands to enhance cellular uptake of biomolecules
INVENTOR(S):	Ts'o, Paul O. P., 3400 N. Charles St., Baltimore, MD, United States 21218 Hangeland, Jon J., Morrisville, PA, United States Lee, Yuan C., Baltimore, MD, United States
PATENT ASSIGNEE(S):	Ts'o, Paul O. P., Baltimore, MD, United States (U.S. individual)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5994517		19991130	
APPLICATION INFO.:	US 1996-755062		19961122	(8)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 1995-7480P	19951122	(60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Stucker, Jeffrey
LEGAL REPRESENTATIVE:	Pillsbury Madison & Sutro LLP
NUMBER OF CLAIMS:	17
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	15 Drawing Figure(s); 13 Drawing Page(s)
LINE COUNT:	1644

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Oligodeoxynucleoside methylphosphonate neoglycopeptide conjugates and related compounds for tissue specific delivery of biologically stable, nonionic oligodeoxynucleoside analogs into cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

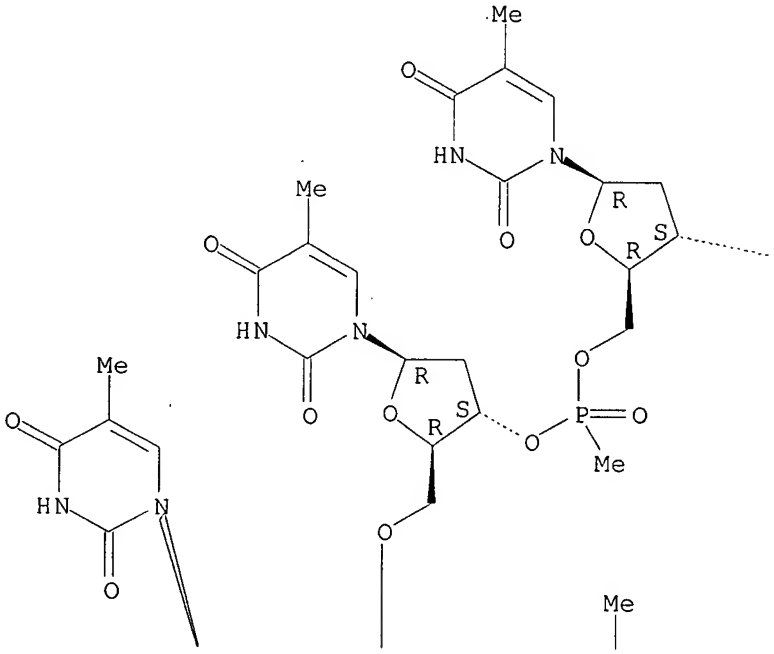
IT **192574-41-7P**

(ligands to enhance cellular uptake of biomols.)

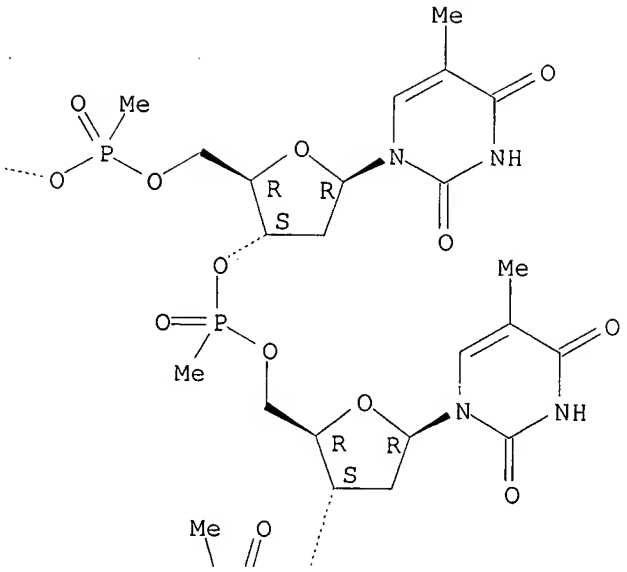
RN 192574-41-7 USPATFULL
CN Thymidine, 5'-O-[[(2-aminoethyl)amino]hydroxyphosphinyl]-2'-O-methyluridylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')-P-deoxy-P-methylthymidylyl-(3'→5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

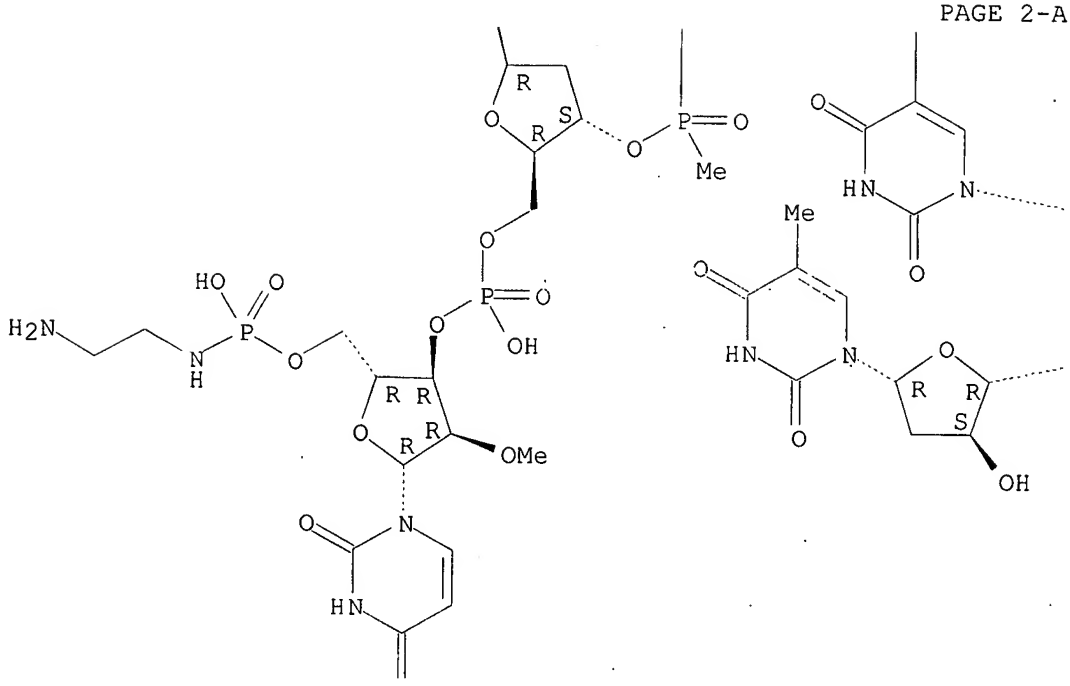
PAGE 1-A



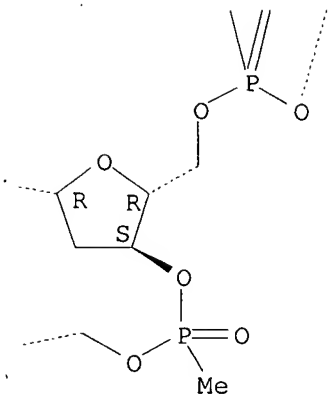
PAGE 1-B



PAGE 2-A



PAGE 2-B



PAGE 3-A

L35 ANSWER 32 OF 34 USPATFULL on STN

ACCESSION NUMBER:	1999:141914 USPATFULL
TITLE:	Polymeric carriers linked to nucleotide analogues via a phosphoramide bond
INVENTOR(S):	Josephson, Lee, Arlington, MA, United States Groman, Ernest V., Brookline, MA, United States Wu, Yong-Qian, Southboro, MA, United States
PATENT ASSIGNEE(S):	Advanced Magnetics, Inc., Cambridge, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5981507		19991109	
APPLICATION INFO.:	US 1996-766597		19961212	(8)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-27325P	19961003 (60)
	US 1996-28331P	19961011 (60)
	US 1995-8600P	19951214 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Scheiner, Laurie
ASSISTANT EXAMINER:	Parkin, J. S.
LEGAL REPRESENTATIVE:	Bromberg & Sunstein LLP
NUMBER OF CLAIMS:	29
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT:	1790

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel compositions of nucleotide analog prodrugs for the treatment of viral infections and cancer are herein disclosed. The prodrugs have a biocompatible polymeric carrier conjugated to the nucleotide analog via an amino-phosphate linkage. The amino group is provided by the carrier,

which either inherently possesses a primary amine, or is modified with reactive groups that incorporate the primary amine onto the carrier. The carrier can be a polyamino acid, a polyvinylic polymer, a polysaccharide or combinations thereof, such as polylysine, HPMA, dextran, hydroxyethyl starch, or polyethylene glycol; the nucleotide analog can be ribavirin araA, AZT, acyclovir, 5-FUDR, araC or ddI. Methods of treating a viral infection of cancer using these prodrugs are also disclosed. The prodrugs endow the nucleotide analogs with substantially enhanced therapeutic efficacy and reduces toxicity in comparison to the nucleotide analog alone.

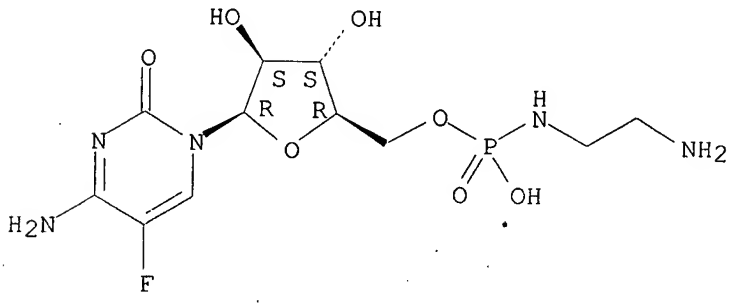
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **192625-64-2DP**, reaction products with dextran derivs.
192625-64-2P 192625-71-1P 192625-72-2P
(preparation and antiviral and anticancer effect of macromol. prodrugs of nucleotide analogs)

RN 192625-64-2 USPATFULL

CN 2(1H)-Pyrimidinone, 4-amino-1-[5-O-[[(2-aminoethyl)amino]hydroxyphosphinyl]-β-D-arabinofuranosyl]-5-fluoro- (9CI) (CA INDEX NAME)

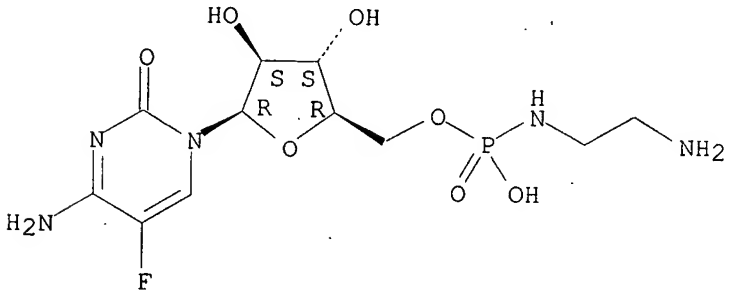
Absolute stereochemistry.



RN 192625-64-2 USPATFULL

CN 2(1H)-Pyrimidinone, 4-amino-1-[5-O-[[(2-aminoethyl)amino]hydroxyphosphinyl]-β-D-arabinofuranosyl]-5-fluoro- (9CI) (CA INDEX NAME)

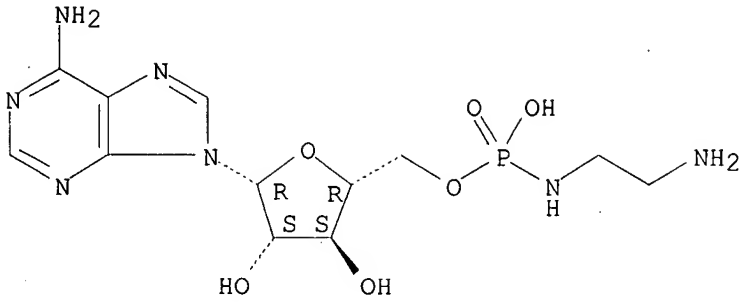
Absolute stereochemistry.



RN 192625-71-1 USPATFULL

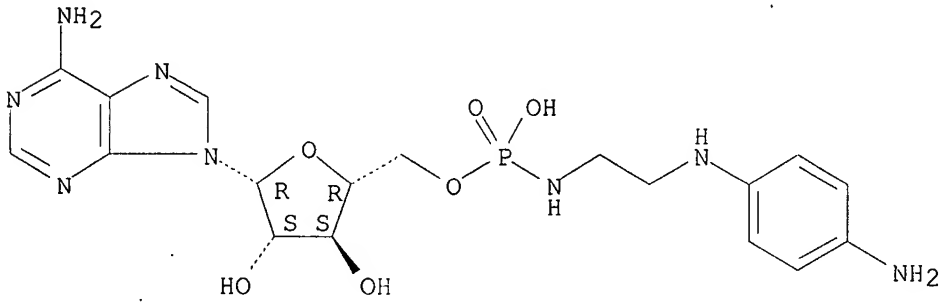
CN 9H-Purin-6-amine, 9-[5-O-[[(2-aminoethyl)amino]hydroxyphosphinyl]-β-D-arabinofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 192625-72-2 USPATFULL
CN 9H-Purin-6-amine, 9-[5-O-[[[2-[(4-aminophenyl)amino]ethyl]amino]hydroxypho sphinyl]-β-D-arabinofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **192625-71-1DP**, reaction products with dextran derivs.
(preparation and antiviral and anticancer effect of macromol. prodrugs of nucleotide analogs)
RN 192625-71-1 USPATFULL
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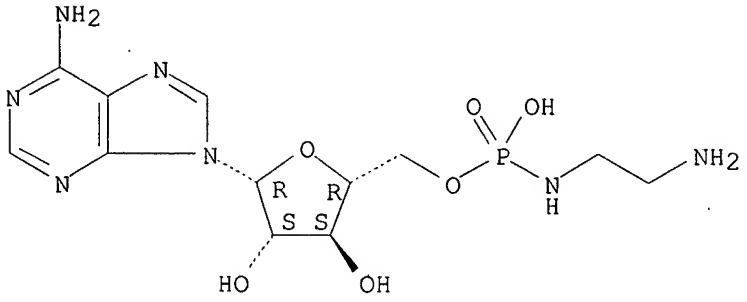
Absolute stereochemistry.



L35 ANSWER 33 OF 34 USPATFULL on STN
ACCESSION NUMBER: 1999:136642 USPATFULL
TITLE: Radioactive phosphorus labeled proteins for targeted radiotherapy
INVENTOR(S): Griffiths, Gary L., Morristown, NJ, United States

Hansen, Hans J., Mystic Island, NJ, United States
Karacay, Habibe, Matawan, NJ, United States
PATENT ASSIGNEE(S): Immunomedics, Inc., Morris Plains, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5976492		19991102
APPLICATION INFO.:	US 1997-979932		19971126 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1994-318917, filed on 5 Oct 1994, now patented, Pat. No. US 5728369
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Achutamurthy, Ponnathapura
ASSISTANT EXAMINER: Ponnaluri, P.
LEGAL REPRESENTATIVE: Foley & Lardner
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
LINE COUNT: 928

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB .sup.32 P- and .sup.33 P-labeled proteins which are useful for radiotherapy are prepared by stably linking .sup.32 P- or .sup.33 P-containing molecules to targeting proteins in such a way that the targeting protein retains the ability to bind to a cellular target. Methods for preparing the labeled proteins and their use in methods of radiotherapy are described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

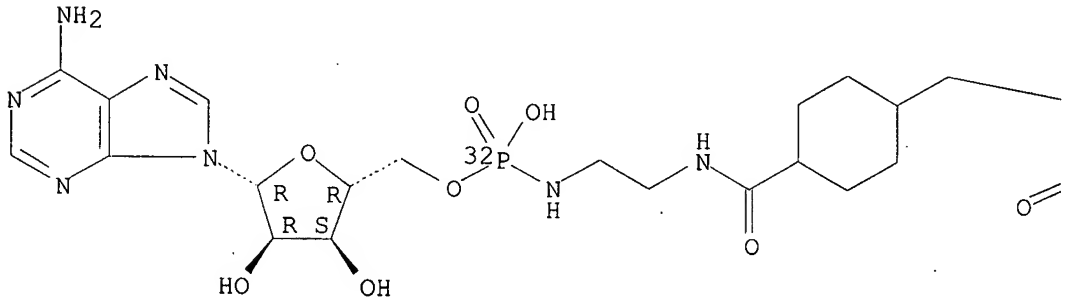
IT **178063-46-2DP**, anti-CEA monoclonal antibody conjugate (radioactive phosphorous labeling of proteins for targeted radiotherapy)

RN 178063-46-2 USPATFULL

CN Adenosine, 5'-[hydrogen [2-[[[4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]carbonyl]amino]ethyl]phosphoramidate-32P] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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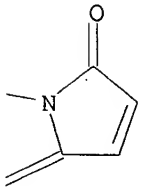
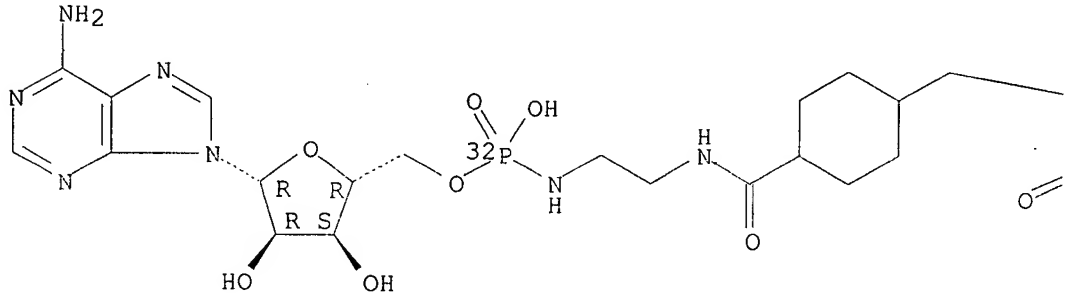


IT **178063-46-2P**
(radioactive phosphorous labeling of proteins for targeted radiotherapy)
RN 178063-46-2 USPATFULL
CN Adenosine, 5'-[hydrogen [2-[[[4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]carbonyl]amino]ethyl]phosphoramidate-32P] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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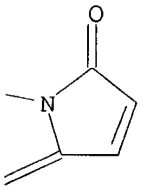

L35 ANSWER 34 OF 34 USPATFULL on STN
ACCESSION NUMBER: 1998:27754 USPATFULL
TITLE: Radioactive phosphorus labeling of proteins for targeted radiotherapy
INVENTOR(S): Griffiths, Gary L., Morristown, NJ, United States
Hansen, Hans J., Mystic Island, NJ, United States
Karacay, Habibe, Matawan, NJ, United States
PATENT ASSIGNEE(S): Immunomedics, Inc., Morris Plains, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5728369		19980317

reprint of search completed 9-26-06

APPLICATION INFO.: US 1994-318917 19941005 (8)
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Achutamurthy, Ponnathapura
LEGAL REPRESENTATIVE: Foley & Lardner
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
LINE COUNT: 875
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB .sup.32 P- and .sup.33 P-labeled proteins which are useful for radiotherapy are prepared by stably linking .sup.32 P- or .sup.33 P-containing molecules to targeting proteins in such a way that the targeting protein retains the ability to bind to a cellular target. Methods for preparing the labeled proteins and their use in methods of radiotherapy are described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **178063-46-2DP**, anti-CEA monoclonal antibody conjugate (radioactive phosphorous labeling of proteins for targeted radiotherapy)
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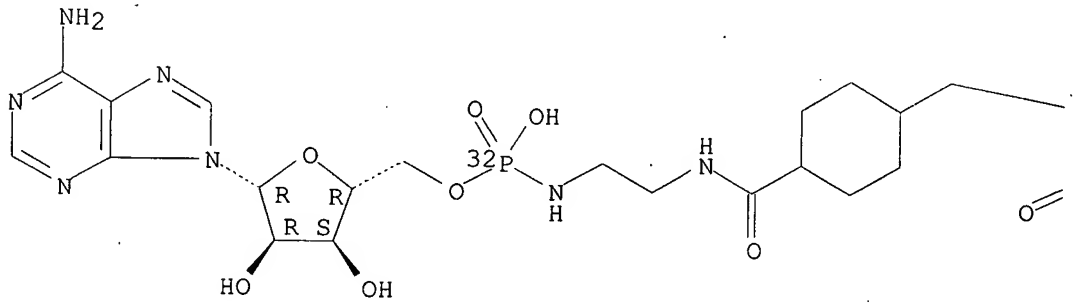
Absolute stereochemistry.

PAGE 1-A



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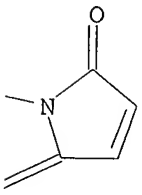
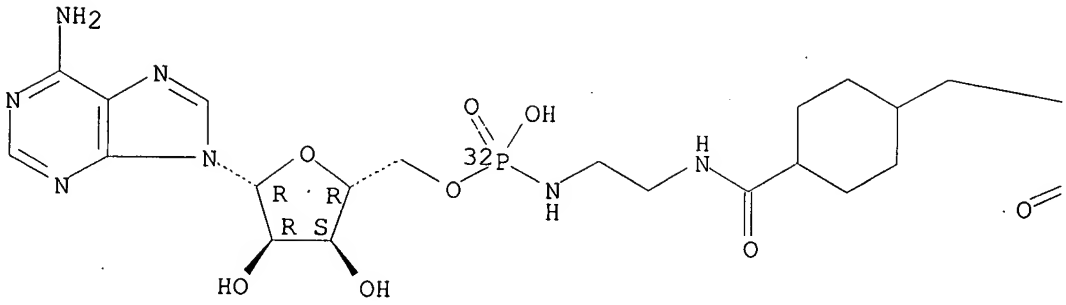


IT **178063-46-2P** (radioactive phosphorous labeling of proteins for targeted radiotherapy)
RN 178063-46-2 USPATFULL
CN Adenosine, 5'-[hydrogen [2-[[[4-[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]carbonyl]amino]ethyl]phosphoramidate-32P] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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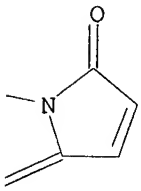

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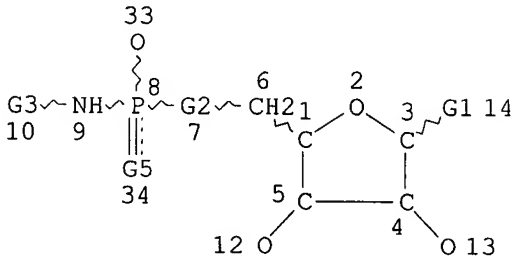

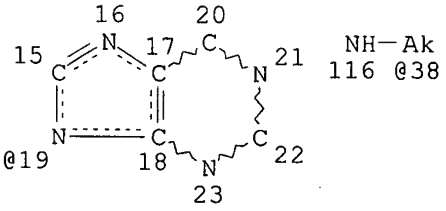

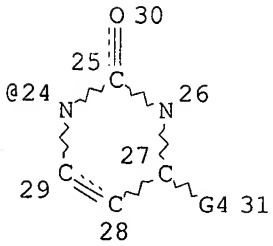

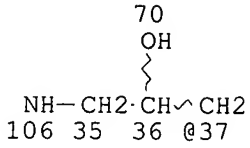

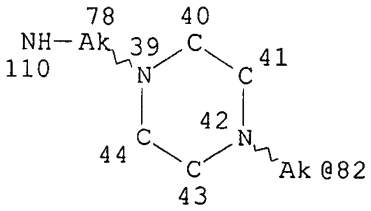

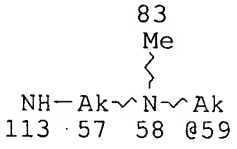

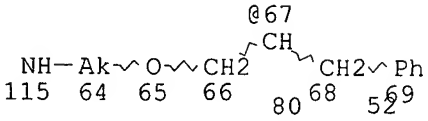

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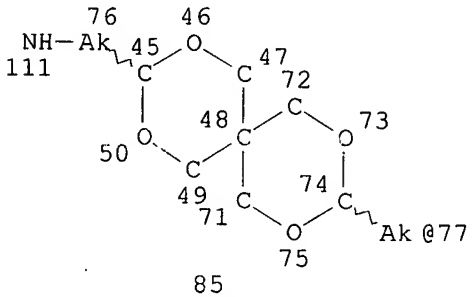

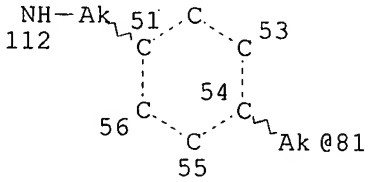

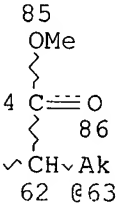

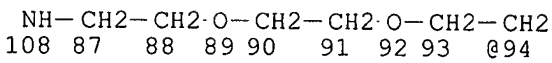

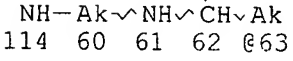

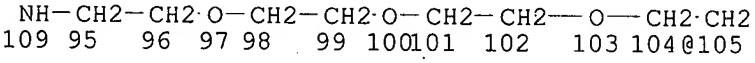

Page 2-A

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VAR G4=NH2/32
VAR G5=O/S
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CONNECT IS E2  RC AT  26
CONNECT IS E1  RC AT  32
CONNECT IS E1  RC AT  33
CONNECT IS E2  RC AT  38
CONNECT IS E2  RC AT  57
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CONNECT IS E2  RC AT  64
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CONNECT IS E2  RC AT  77
CONNECT IS E2  RC AT  78
CONNECT IS E2  RC AT  80
CONNECT IS E2  RC AT  81
CONNECT IS E2  RC AT  82
DEFAULT MLEVEL IS ATOM
GGCAT   IS LIN  SAT  AT  38
GGCAT   IS LIN  SAT  AT  57
GGCAT   IS LIN  SAT  AT  59
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GGCAT   IS LIN  SAT  AT  63
GGCAT   IS LIN  SAT  AT  64
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GGCAT   IS LIN  LOC  SAT  AT  77
GGCAT   IS LIN  LOC  SAT  AT  78
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GGCAT   IS LIN  LOC  SAT  AT  82
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GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 113

STEREO ATTRIBUTES: NONE
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L6            25 SEA ABB=ON  HARDEMAN K?/AU
L7          3161 SEA ABB=ON  HALL S?/AU
L8           472 SEA ABB=ON  WARE R?/AU
L9            15 SEA ABB=ON  HINKLEY L?/AU
L10           64 SEA ABB=ON  JENKS M?/AU
L11            2 SEA ABB=ON  L6 AND L7 AND L8 AND L9 AND L10
                 D SCAN
L12       619346 SEA ABB=ON  NUCLEOTIDE? OR OLIGONUCLEOTIDE?
L13       184616 SEA ABB=ON  (SOLID OR RESIN)(W)(SUPPORT# OR PHASE#)
L14            3 SEA ABB=ON  (L6 OR L7 OR L8 OR L9 OR L10) AND L12 AND L13
L15      1484089 SEA ABB=ON  LINK? OR CROSSLINK?
L16         3721 SEA ABB=ON  (L6 OR L7 OR L8 OR L9 OR L10)
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L19            4 SEA ABB=ON  L17 AND L13

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L22         1112 SEA ABB=ON  WARE R?/AU
L23           29 SEA ABB=ON  HINKLEY L?/AU
L24          115 SEA ABB=ON  JENKS M?/AU
L25      1252177 SEA ABB=ON  NUCLEOTIDE? OR OLIGONUCLEOTIDE?
L26       143736 SEA ABB=ON  (SOLID OR RESIN)(W)(SUPPORT# OR PHASE#)
L27      1681429 SEA ABB=ON  LINK? OR CROSSLINK?
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L29            0 SEA ABB=ON  (L20 OR L21 OR L22 OR L23 OR L24) AND L25 AND L26

L30           18 SEA ABB=ON  (L20 OR L21 OR L22 OR L23 OR L24) AND L27 AND (L25
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                 D QUE L29
                 D QUE L30

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L32            0 SEA ABB=ON  L31 AND (L6 OR L7 OR L8 OR L9 OR L10)

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               D QUE NOS L32
               D QUE L11
               D QUE L14
               D QUE L18
               D QUE L19
L33           13 SEA ABB=ON  (L11 OR L14 OR L18 OR L19)

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               D QUE L29
               D QUE L30

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                     ANSWERS '3-11' FROM FILE USPATFULL
                     ANSWER '12' FROM FILE TOXCENTER
                     ANSWER '13' FROM FILE CASREACT
                     ANSWERS '14-15' FROM FILE MEDLINE
                     ANSWERS '16-17' FROM FILE BIOTECHNO
                     ANSWER '18' FROM FILE BIOSIS
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               D IBIB ED ABS 1-20

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               D STAT QUE L3

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L35           34 DUP REM L31 (7 DUPLICATES REMOVED)
                     ANSWERS '1-28' FROM FILE CAPLUS
                     ANSWERS '29-34' FROM FILE USPATFULL
               D IBIB ED ABS HITSTR 1-34

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